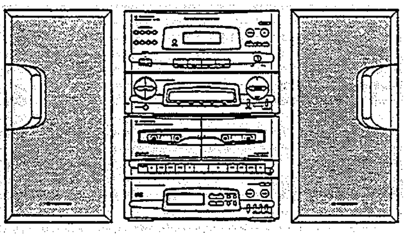
PIONEER®
The Art of Entertainment

Service Manual



ORDER NO.
ARP2821

COMPACT HI-FI SYSTEM
X-P30
STEREO RECEIVER
SX-P30
CASSETTE DECK MULTI CD
PDC-P30C
SPEAKER SYSTEM
S-P30

- **X−P30 is a combination of the following components.**
  STEREO RECEIVER: SX−P30
  CASSETTE DECK MULTI CD: PDC−P30C
  SPEAKER SYSTEM: S−P30

THIS MANUAL IS APPLICABLE TO THE FOLLOWING MODEL(S) AND TYPE(S).

Type	Model				Power Requirement	The voltage can be converted by the following method.
	X−P30	SX−P30	PDC−P30C	S−P30		
KUXJ	○	○	—	—	AC120V	—
SDXJC/NC	○	○	—	—	AC110V/120−127V/220V/240V	With the voltage selector
AUXJ	—	—	○	—	AC power supplied from power transformer's secondary of other system component	—
ADXJC/NC	—	—	○	—		

- **PDC−P30C does not function properly when independent; to avoid malfunctions, be sure to connect it to SX−P30, otherwise damage may result.**

PIONEER ELECTRONIC CORPORATION 4-1, Meguro 1-Chome, Meguro-ku, Tokyo 153, Japan
PIONEER ELECTRONICS SERVICE INC. P.O. Box 1760, Long Beach, California 90801 U.S.A.
PIONEER ELECTRONICS OF CANADA, INC. 300 Allstate Parkway Markham, Ontario L3R 0P2 Canada
PIONEER ELECTRONIC [EUROPE] N.V. Haven 1087 Keetberglaan 1, 9120 Melsele, Belgium
PIONEER ELECTRONICS AUSTRALIA PTY. LTD. 178-184 Boundary Road, Braeside, Victoria 3195, Australia TEL: [03] 580-9911
© PIONEER ELECTRONIC CORPORATION 1993

CONTENTS

1. SAFETY INFORMATION 2
2. LIST OF PCB ASSEMBLIES 3
3. EXPLODED VIEWS, PACKING AND PARTS LIST 4
4. CONNECTION DIAGRAM 13
5. SCHEMATIC AND PCB DIAGRAMS 15
6. PCB PARTS LIST 39
7. ADJUSTMENTS 44
8. IC INFORMATION 48
9. BLOCK DIAGRAM 61
10. PANEL FACILITIES 64
11. SPECIFICATIONS 67

1. SAFETY INFORMATION

This service manual is intended for qualified service technicians; it is not meant for the casual do-it-yourselfer. Qualified technicians have the necessary test equipment and tools, and have been trained to properly and safely repair complex products such as those covered by this manual. Improperly performed repairs can adversely affect the safety and reliability of the product and may void the warranty. If you are not qualified to perform the repair of this product properly and safely, you should not risk trying to do so and refer the repair to a qualified service technician.

WARNING

Lead in solder used in this product is listed by the California Health and Welfare agency as a known reproductive toxicant which may cause birth defects or other reproductive harm (California Health & Safety Code, Section 25249.5). When servicing or handling circuit boards and other components which contain lead in solder, avoid unprotected skin contact with the solder. Also, when soldering do not inhale any smoke or fumes produced.

NOTICE
(FOR CANADIAN MODEL ONLY)
Fuse symbols ▭ (fast operating fuse) and/or ▭ (slow operating fuse) on PCB indicate that replacement parts must be of identical designation.

REMARQUE
(POUR MODÈLE CANADIEN SEULEMENT)
Les symboles de fusible ▭ (fusible de type rapide) et/ou ▭ (fusible de type lent) sur CCI indiquent que les pièces de remplacement doivent avoir la même désignation.

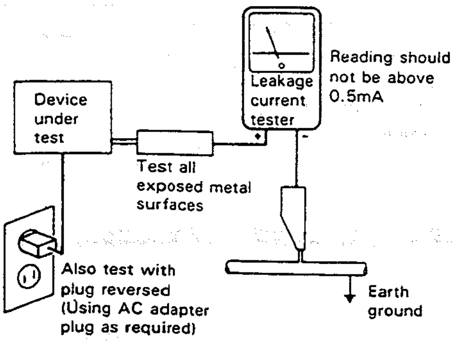
(FOR USA MODEL ONLY)

1. SAFETY PRECAUTIONS

The following check should be performed for the continued protection of the customer and service technician.

LEAKAGE CURRENT CHECK

Measure leakage current to a known earth ground (water pipe, conduit, etc.) by connecting a leakage current tester such as Simpson Model 229-2 or equivalent between the earth ground and all exposed metal parts of the appliance (input/output terminals, screwheads, metal overlays, control shaft, etc.). Plug the AC line cord of the appliance directly into a 120V AC 60Hz outlet and turn the AC power switch on. Any current measured must not exceed 0.5mA.



Reading should not be above 0.5mA
Leakage current tester
Device under test
Test all exposed metal surfaces
Also test with plug reversed (Using AC adapter plug as required)
Earth ground

AC Leakage Test

ANY MEASUREMENTS NOT WITHIN THE LIMITS OUTLINED ABOVE ARE INDICATIVE OF A POTENTIAL SHOCK HAZARD AND MUST BE CORRECTED BEFORE RETURNING THE APPLIANCE TO THE CUSTOMER.

2. PRODUCT SAFETY NOTICE

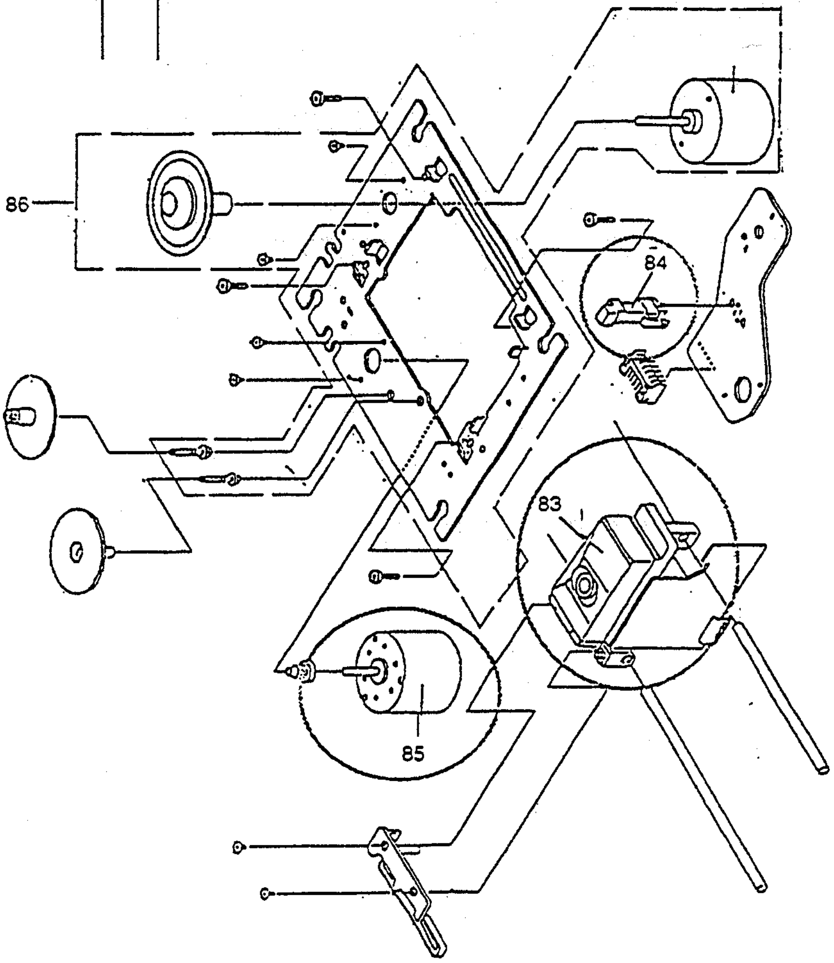
Many electrical and mechanical parts in the appliance have special safety related characteristics. These are often not evident from visual inspection nor the protection afforded by them necessarily can be obtained by using replacement components rated for voltage, wattage, etc. Replacement parts which have these special safety characteristics are identified in this Service Manual.

Electrical components having such features are identified by marking with a △ on the schematics and on the parts list in this Service Manual.
The use of a substitute replacement component which dose not have the same safety characteristics as the PIONEER recommended replacement one, shown in the parts list in this Service Manual, may create shock, fire, or other hazards.

Product Safety is continuously under review and new instructions are issued from time to time. For the latest information, always consult the current PIONEER Service Manual. A subscription to, or additional copies of, PIONEER Service Manual may be obtained at a nominal charge from PIONEER.

MODEL (S.M NO.)	PAGE	INCORRECT	CORRECT
X-P30 (ARP2821)	11	The following parts in CD MACHANISM Assy are available as spare parts	

No.	Description	Part No
83	PICK UP Assy	AZN7099
84	LIMIT SW	AZS7007
85	MOTOR	AZX7004
86	CHASSIS Assy	AZW7058



S 12a

2. LIST OF PCB ASSEMBLIES

- COMPACT HI-FI SYSTEM: X−P30
  - STEREO RECEIVER: SX−P30
    - MAIN PCB ASSY KITS (AZW7001: KUXJ Type)
    - MAIN PCB ASSY KITS (AZW7033: SDXJC/NC Type)
      - MAIN PCB ASSY (AZW7004: KUXJ Type)
      - MAIN PCB ASSY (AZW7034: SDXJC/NC Type)
      - FRONT PCB ASSY (AZW7005: KUXJ Type)
      - FRONT PCB ASSY (AZW7035: SDXJC/NC Type)
      - AC SUPPLY (A) PCB ASSY (AZW7006: KUXJ Type Only)
      - AC SUPPLY (B) PCB ASSY (AZW7036: SDXJC/NC Type Only)
      - VOL, SEL. PCB ASSY (AZW7031: SDXJC/NC Type Only)
      - H/P PCB ASSY (AZW7002)
  - CASSETTE DECK MULTI CD: PDC−P30C
    - CD SUB I PCB ASSY (AZW7029)
    - CD DECODER PCB ASSY KITS (AZW7008)
      - CD DECODER PCB ASSY (AZW7012)
      - CD CONTROL PCB ASSY (AZW7013)
      - CD LAMP PCB ASSY (AZW7014)
      - CD SENSOR PCB ASSY (AZW7015)
      - CD SUB PCB ASSY (AZW7016)
    - CASS. PCB ASSY KITS (AZW7007)
      - CASS. PCB ASSY (AZW7009)
      - R/P SW PCB ASSY (AZW7010)
      - HI-SPEED PCB ASSY (AZW7011)
      - CONNECTOR PCB ASSY (AZW7003)
  - SPEAKER SYSTEM: S−P30
    - S−P30−L (AZP7001)
    - S−P30−R (AZP7002)
    - SPEAKER SYSTEM AZP7001 and AZP7002 have no service part.

3. EXPLODED VIEWS, PACKING AND PARTS LIST

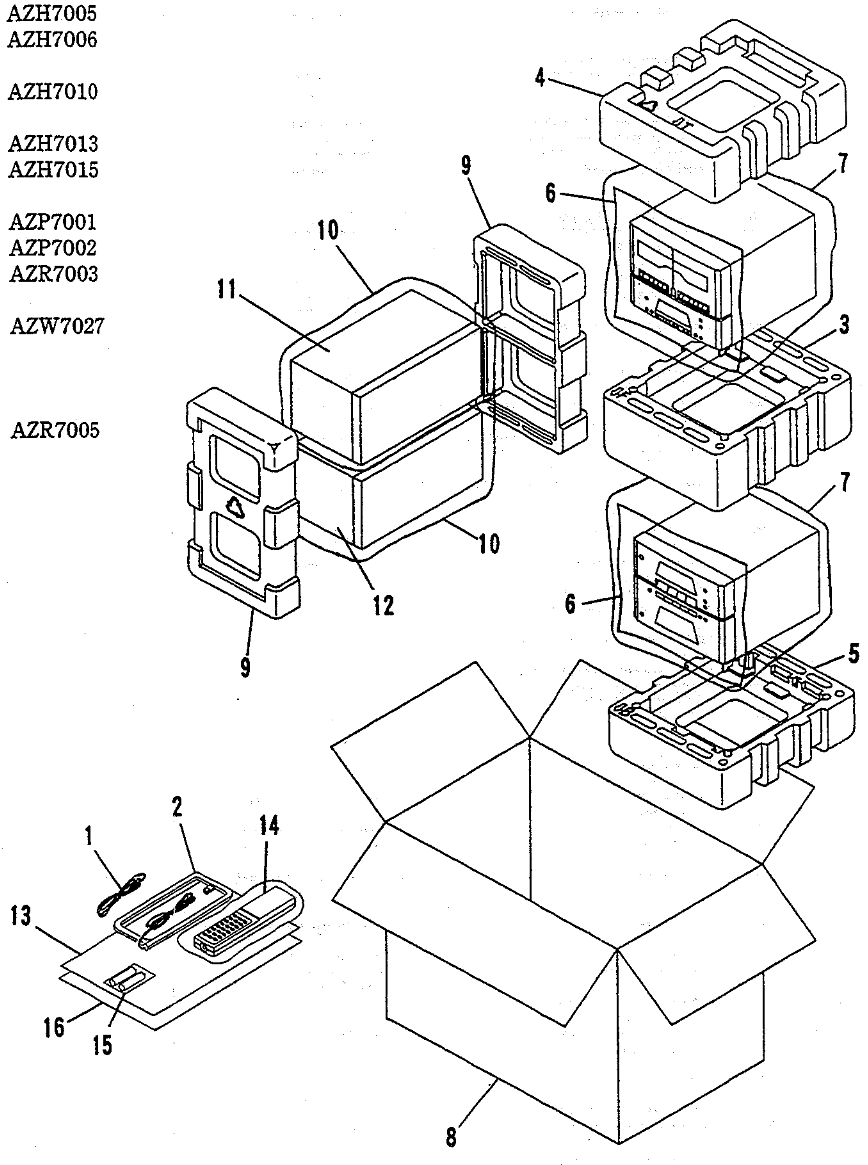
NOTES :

- *Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.*
- *The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.*
- *Parts marked by "◉" are not always kept in stock. Their delivery time may be longer than usual or they may be unavailable.*

3.1 PACKING

Parts List of Packing

Mark	No.	Description	Parts No.
	1	FM LINE ANT	AZE1070
	2	AM LOOP ANTENNA	AZE7001
	3	SNOW BOX (C)	AZH7001
	4	SNOW BOX (T)	AZH7002
	5	SNOW BOX (B)	AZH7003
	6	SOFT SHEET	AZH7004
	7	POLY BAG	AZH7005
	8	CARTON (For KUXJ type)	AZH7006
	8	CARTON (For SDXJC/NC type)	AZH7010
	9	SP. SNOW BOX	AZH7013
	10	POLY BAG	AZH7015
	11	SPEAKER (S−P30−R)	AZP7001
	12	SPEAKER (S−P30−L)	AZP7002
	13	OPERATING INSTRUCTIONS (English)	AZR7003
	14	REMOTE CONTROL UNIT (CU−SX078)	AZW7027
NSP	15	BATTERY (R6P/AA)	
	16	OPERATING INSTRUCTIONS (Spanish) (SDXJC/NC type only)	AZR7005

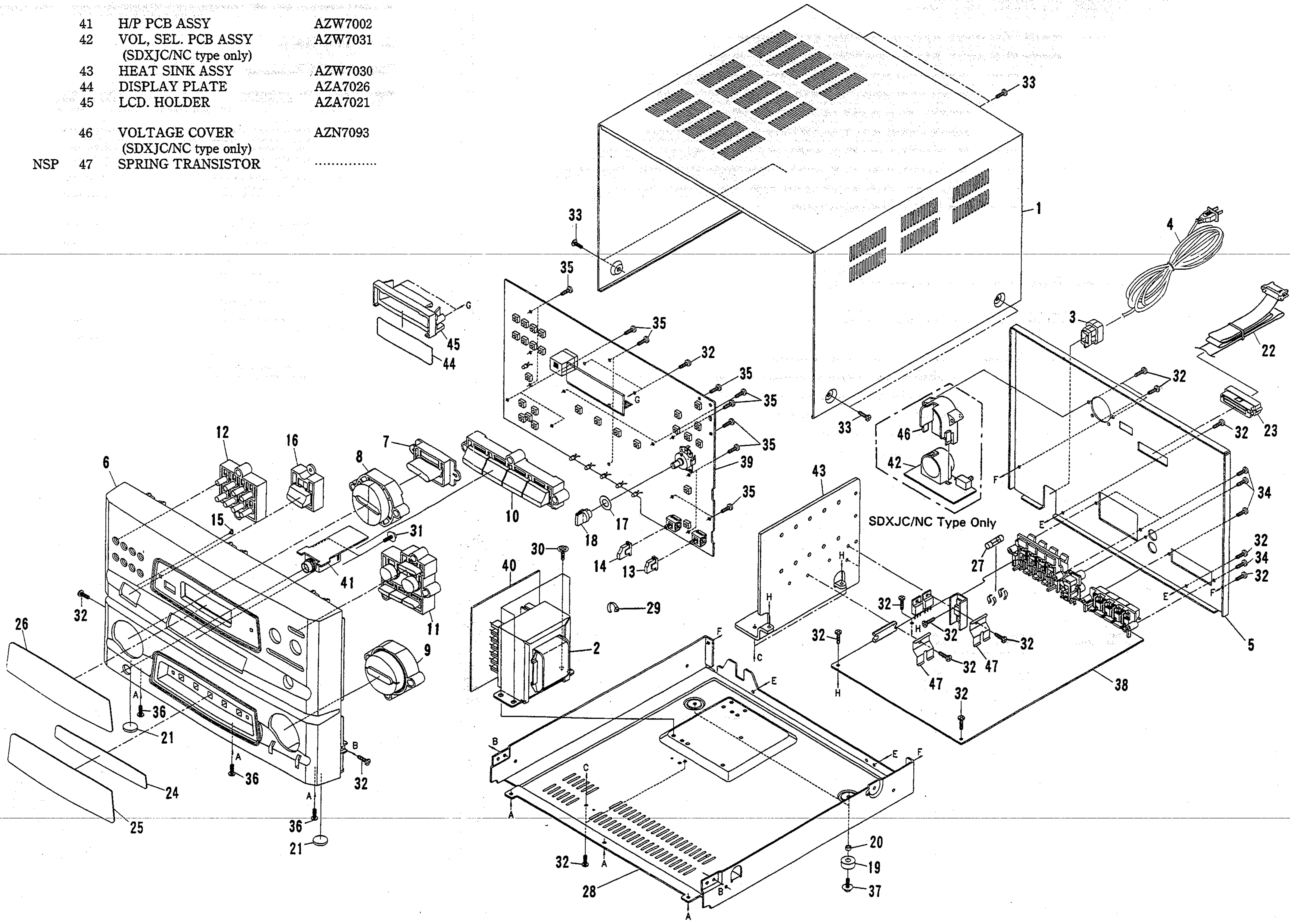


3.2 FOR SX—P30

Parts List

Mark	No.	Description	Parts No.
	1	TOP COVER	AZN7066
⚠	2	POWER TRANS. EI-66 (For KUXJ type)	AZT7001
⚠	2	POWER TRANS. EI-76 (For SDXJC/NC type)	AZT7006
	3	CORD BUSHING 2104	AZE7002
⚠	4	AC POWER CORD (For KUXJ type)	ADG1058
⚠	4	AC POWER CORD (For SDXJC/NC type)	ADG1051
	5	REAR PANEL (For KUXJ type)	AZN7002
	5	REAR PANEL (For SDXJC/NC type)	AZN7078
	6	FRONT PANEL	AZN7001
	7	FLAT KNOB	AZA7004
	8	EQ KNOB	AZA7001
	9	VOLUME KNOB	AZA7009
	10	FUNCTION KNOB	AZA7005
	11	TUNING KNOB	AZA7008
	12	PREST KNOB	AZA7007
	13	SURROUND KNOB	AZA7003
	14	BASS BOSST KNOB	AZA7002
	15	INDICATOR	AZA7025
	16	POWER KNOB	AZA7006
	17	VR SHEET	AZN7081
	18	BALANCE KNOB	AZA7024
	19	PU FOOT	AZN7011
	20	HOLDER (RUBBER)	AZN7012
	21	FOOT RUBBER	AZN7004
	22	17P PLUG ASSY (700M/M)	AZK7002
	23	WIRE CORD HOLDER	AZK7001
	24	EQ DISPLAY PLATE	AZA7012
	25	EQ DISPLAY WINDOW	AZA7011
	26	LED WINDOW	AZA7010
⚠	27	FUSE (3A/125V, F401) (For KUXJ type)	AZE7004
⚠	27	FUSE (T3.15A/250V, F401) (For SDXJC/NC type)	AEK−513
NSP	28	BOTTOM CHASSIS	....
	29	NYLON BINDER	AEC−093
	30	SCREW	ABA1093
	31	SCREW	AZB7008
	32	SCREW	BBZ30P080FMC
	33	SCREW	BBZ30P080FZK
	34	SCREW	BBZ30P100FMC
	35	SCREW	BBZ30P120FMC
	36	SCREW	CBZ30P080FZK
	37	SCREW	IBZ30P080FMC
	38	MAIN PCB ASSY (For KUXJ type)	AZW7004
	38	MAIN PCB ASSY (For SDXJC/NC type)	AZW7034
	39	FRONT PCB ASSY (For KUXJ type)	AZW7005
	39	FRONT PCB ASSY (For SDXJC/NC type)	AZW7035
	40	AC SUPPLY (A) PCB ASSY (KUXJ type only)	AZW7006
	40	AC SUPPLY (B) PCB ASSY (SDXJC/NC type only)	AZW7036
	41	H/P PCB ASSY	AZW7002
	42	VOL, SEL. PCB ASSY (SDXJC/NC type only)	AZW7031
	43	HEAT SINK ASSY	AZW7030
	44	DISPLAY PLATE	AZA7026
	45	LCD. HOLDER	AZA7021
	46	VOLTAGE COVER (SDXJC/NC type only)	AZN7093
NSP	47	SPRING TRANSISTOR	....

NOTE : Screws adjacent to ▼ mark on the product are used for disassembly.

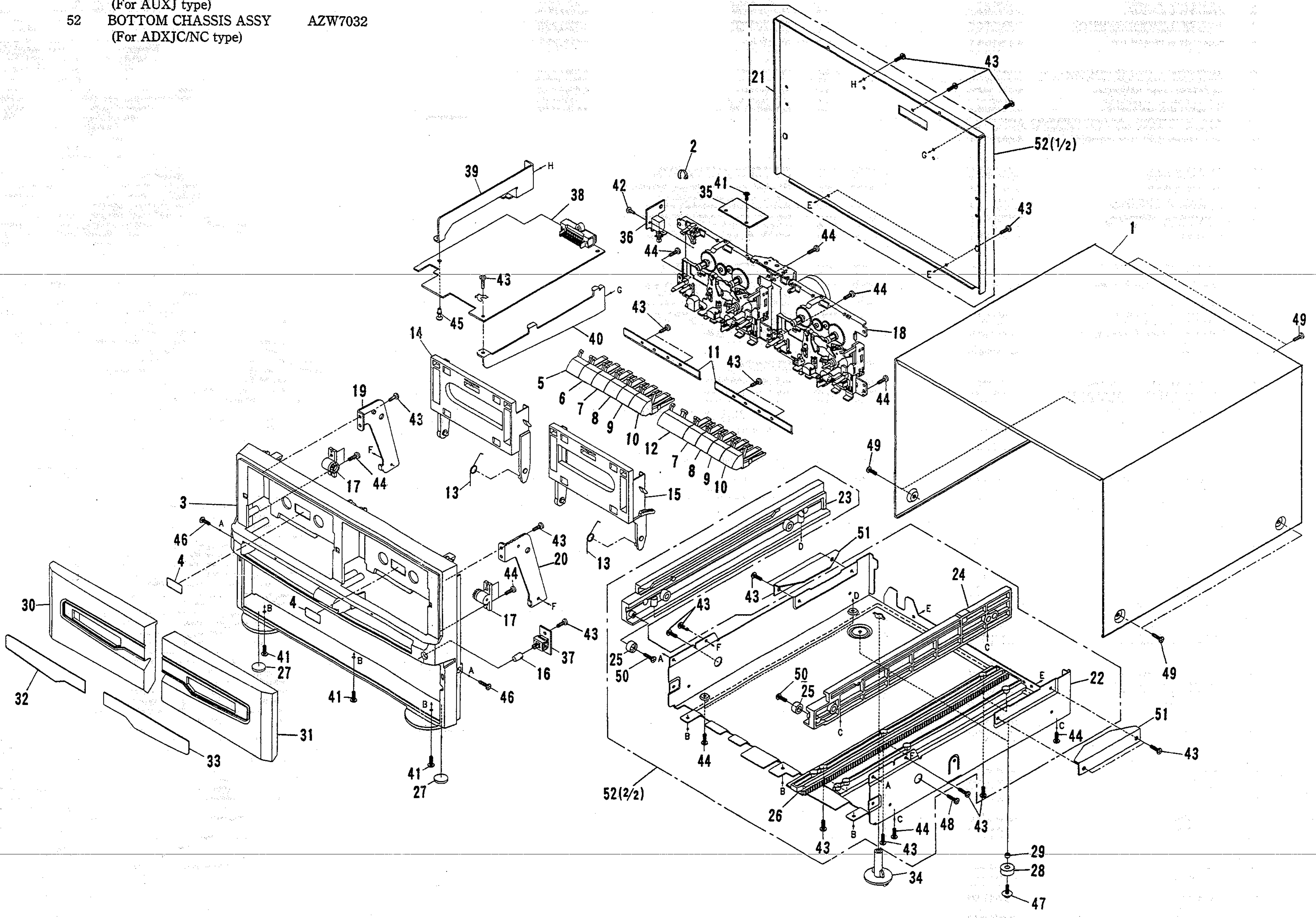


3.3 FOR PDC−P30C

3.3.1 Exterior

Parts List

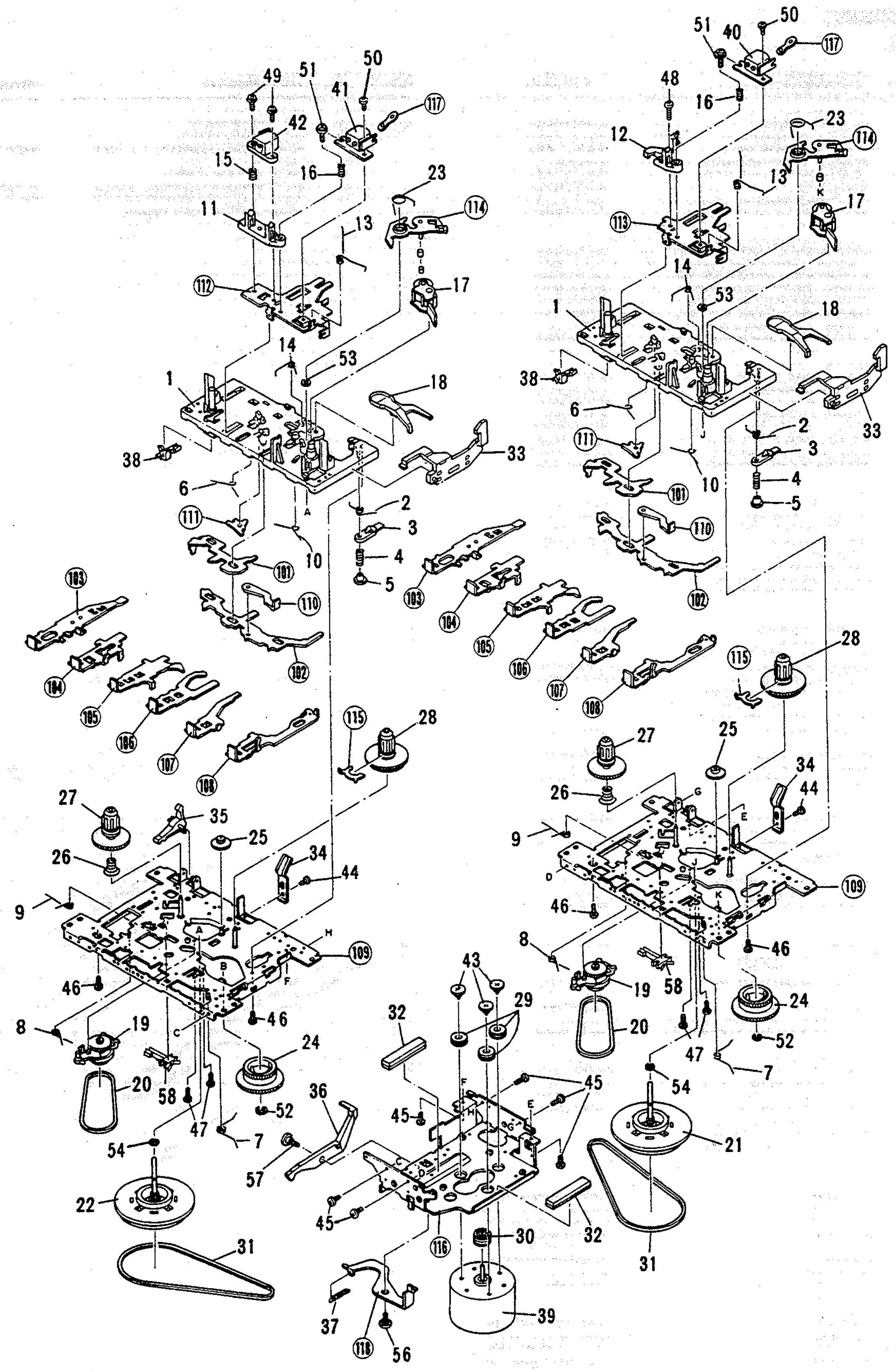
Mark	No.	Description	Parts No.
	1	TOP COVER	AZN7006
	2	NYLON BINDER	AEC−093
	3	FRONT ESC (CASS)	AZN7013
	4	MIRROR	AZN7018
	5	CASS. BUTTON (REC)	AZN7087
	6	CASS. BUTTON (PLAY)	AZN7016
	7	CASS. BUTTON (REW)	AZN7084
	8	CASS. BUTTON (F. F)	AZN7083
	9	CASS. BUTTON (STOP)	AZN7086
	10	CASS. BUTTON (PAUSE)	AZN7085
	11	KNOB HOLDER	AZN7024
	12	CASS. BUTTON (B)	AZN7017
	13	CASS SPRING	AZB7001
	14	DOOR HOLDER (L)	AZN7019
	15	DOOR HOLDER (R)	AZN7020
	16	H. S. D. KNOB	AZA7013
	17	GEAR DAMPER	AZN7021
	18	DECK ASSY	AZW7021
NSP	19	SIDE BRACKET (L)	....
NSP	20	SIDE BRACKET (R)	....
	21	REAR PANEL (For AUXJ type)	AZN7025
	21	REAR PANEL (For ADXJC/NC type)	AZN7072
NSP	22	BOTTOM CHASSIS	....
	23	SIDE RAIL (L)	AZN7029
	24	SIDE RAIL (R)	AZN7028
	25	PULLEY (SIDE)	AZN7030
	26	GUIDE PIN PLATE	AZN7032
	27	FOOT RUBBER	AZN7004
	28	PU FOOT	AZN7011
	29	HOLDER (RUBBER)	AZN7012
	30	CASS. DOOR (L)	AZN7014
	31	CASS. DOOR (R)	AZN7015
	32	CASS. WINDOW (L)	AZA7014
	33	CASS. WINDOW (R)	AZA7015
	34	LOCK LEVER	AZN7082
	35	CONNECTOR PCB ASSY	AZW7003
	36	R/P SW PCB ASSY	AZW7010
	37	HI-SPEED PCB ASSY	AZW7011
	38	CASS PCB ASSY	AZW7009
NSP	39	CASS. PCB BKT. (L)	....
NSP	40	CASS. PCB BKT. (R)	....
	41	SCREW	CBZ20P050FMC
	42	SCREW	BBZ20P050FMC
	43	SCREW	BBZ30P080FMC
	44	SCREW	BBZ30P100FMC
	45	P-RIVET 3×4.5	AZB7002
	46	SCREW	CBZ30P050FZK
	47	SCREW	IBZ30P080FMC
	48	SCREW	BBZ40P080FMC
	49	SCREW	BBZ30P080FZK
	50	SCREW	BBZ30P060FMC
NSP	51	CD SIDE BKT.	
	52	BOTTOM CHASSIS ASSY (For AUXJ type)	AZW7020
	52	BOTTOM CHASSIS ASSY (For ADXJC/NC type)	AZW7032



3.3.2 Cassette Deck Section

Parts List

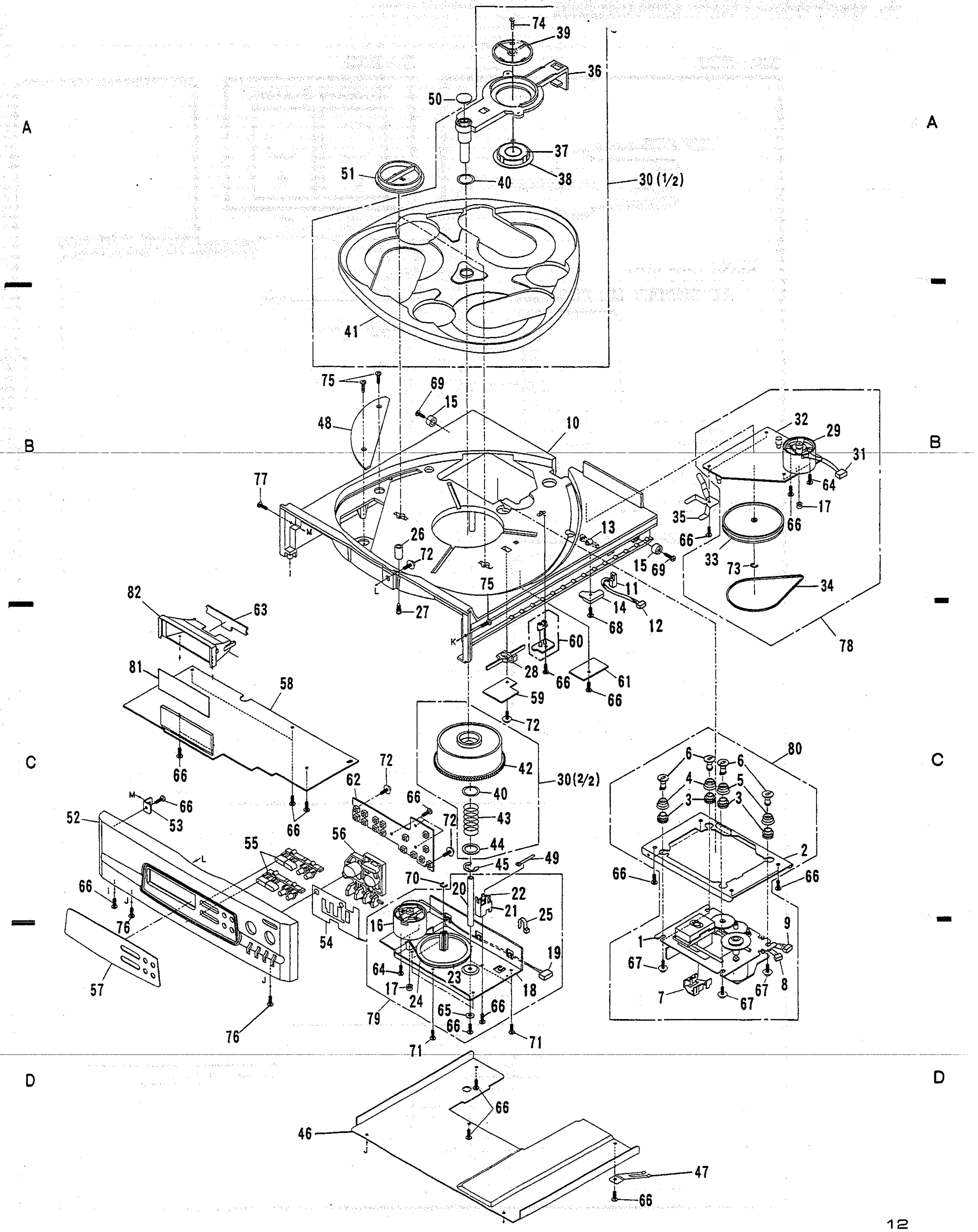
Mark	No.	Description	Parts No.
	1	BASE ASSEMBLY	AZN1641
	2	CONTROL SPRING	AZN1642
	3	PAUSE LEVER	AZN1643
	4	PAUSE LEVER SPRING	AZN1644
	5	PAUSE STOPPER	AZN1645
	6	BUTTON LEVER SPRING (A)	AZN1646
	7	ACTUATOR SPRING	AZN1647
	8	PS LEVER SPRING	AZN1648
	9	REC BUTTON LEVER SPRING	AZN1649
	10	BUTTON LEVER SPRING (B)	AZN1650
	11	HEAD BASE	AZN1651
	12	HEAD BASE	AZN1652
	13	PANEL P SPRING	AZN1653
	14	CONTROL SPRING	AZN1654
	15	SPRING	AZN1655
	16	AZIMUTH SPRING	AZN1656
	17	PINCH ROLLER ARM ASSEMBLY	AZN1657
	18	SENSING LEVER	AZN1672
	19	RF CLUTCH ASSEMBLY	AZN1658
	20	RF BELT	AZN1659
	21	FLYWHEEL ASSEMBLY	AZN1660
	22	FLYWHEEL ASSEMBLY	AZN1661
	23	GEAR PLATE SPRING	AZN1662
	24	CAM GEAR	AZN1663
	25	FF GEAR	AZN1664
	26	BACK TENSION SPRING	AZN1665
	27	SUPPLY REEL ASSEMBLY	AZN1666
	28	TAKE-UP REEL ASSEMBLY	AZN1667
	29	MOTOR RUBBER	AZN1668
	30	MOTOR PULLEY	AZN1669
	31	MAIN BELT	AZN1670
	32	ANTI VIBRATION FELT MAT	AZN1671
	33	EJECT SLIDE LEVER	AZN1677
	34	PACK SPRING	AZN1673
	35	RECORD SAFETY LEVER	AZN1674
	36	KICK LEVER (B)	AZN1679
	37	KICK LEVER SPRING	AZN1676
	38	LEAF SWITCH	AZS1068
	39	MOTOR	AZX1033
	40	P HEAD	AZP1028
	41	R/P HEAD	AZP1029
	42	E HEAD	AZP1030
	43	SCREW	AZB1215
	44	SCREW	AZB1216
	45	SCREW	AZB1217
	46	SCREW	AZB1218
	47	SCREW	AZB1219
	48	SCREW	AZB1220
	49	SCREW	AZB1221
	50	SCREW	AZB1222
	51	SCREW	AZB1223
	52	WASHER	AZB1224
	53	WASHER	AZB1225
	54	WASHER	AZB1226
	55	E RING	AZB1227
	56	SCREW	AZB1228
	57	SCREW	AZB1229
	58	LEAF SW	AZS7002
NSP	101	SWITCH ACTUATOR	
NSP	102	PUSH BUTTON ACTUATOR	
NSP	103	REC BUTTON LEVER	
NSP	104	PLAY BUTTON LEVER	
NSP	105	REW BUTTON LEVER	
NSP	106	FF BUTTON LEVER	
NSP	107	STOP BUTTON LEVER	
NSP	108	PAUSE BUTTON LEVER	
NSP	109	CHASSIS ASSEMBLY	
NSP	110	KICK LEVER	
NSP	111	STOPPER	
NSP	112	HEAD PANEL	
NSP	113	HEAD PANEL	
NSP	114	GEAR PLATE ASSEMBLY	
NSP	115	SENSOR	
NSP	116	MOTOR BRACKET	
NSP	117	LUG PLATE	
NSP	118	KICK LEVER (A)	



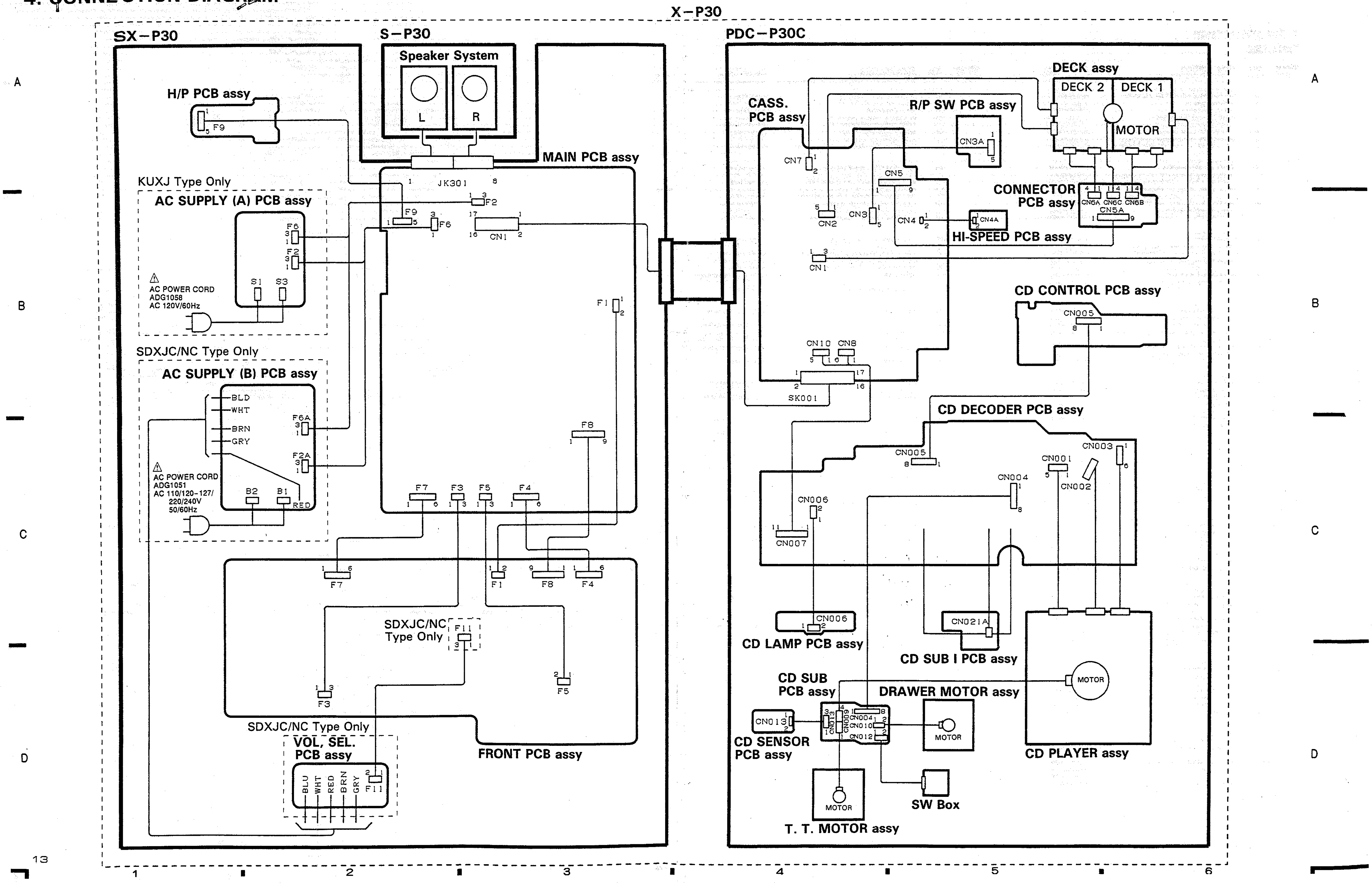
3.3.3 CD Section

Parts List

Mark	No.	Description	Parts No.
	1	CD MECHANISM ASSY	AZN7052
	2	CD PLATE	AZN7047
	3	CDK90 CUSHION	AZN7048
	4	SPRING (BLACK COLOR)	AZB7005
	5	SPRING (WHITE COLOR)	AZB7004
	6	CDK90 HOLDER	AZN7049
	7	WIRE CONTROL HOLDER	AZN7050
	8	8P CON. ASSY 350M/M	AZD7005
	9	5P CON. ASSY 350M/M	AZD7006
	10	CHANGER BASE	AZN7035
	11	LEAF SW	AZS7001
	12	3P CON. ASSY 100M/M	AZD7001
	13	SHAFT (LEVER SW)	AZN7039
	14	LEVER PLATE	AZN7038
	15	PULLEY (SIDE)	AZN7030
	16	T. T-MOTOR	AZX7003
	17	MOTOR PULLEY	AZN7053
	18	MOUNTING PLATE ASSY	AZW7026
	19	4P CON. ASSY 300/200	AZD7008
	20	CENTER SPINDLE	AZN7056
	21	SW BOX	AZN7058
	22	LEAF SW	AZS7002
	23	WHEEL	AZN7057
	24	BELT 60×1.6	AZN7059
	25	NYLON BINDER	AEC−093
	26	SLEEVE	AZN7040
	27	SLEEVE SPRING	AZB7003
	28	GUIDE PLATE	AZN7041
	29	DRAWER MOTOR	AZX7002
	30	TURNTABLE ASSY	AZW7019
	31	2P CON. ASSY 200M/M	AZD7007
	32	MOTOR MTG. ASSY	AZW7025
	33	GEAR WHEEL	AZN7055
	34	BELT 58×1.6	AZN7054
	35	EARTH PLATE	AZN7043
	36	ARM ASSY	AZW7028
	37	MAGUNETIC	AZN7062
	38	MAG. HOLDER	AZN7064
	39	MAG. COVER	AZN7063
	40	POLY WASHER	AZB7012
NSP	41	TURNTABLE	....
	42	CAM GEAR	AZN7065
	43	CLUTCH SPRING	AZB7009
	44	WASHER	AZB7010
	45	E RING	AZB7011
NSP	46	CD PCB COVER	....
	47	EARTH PLATE (B)	AZN7089
	48	MAIN BASE COVER	AZN7009
	49	SW PIN	AZN7008
	50	SCREW CAP	AZN7007
	51	TRANSIT LOCK	AZN7010
	52	CD PANEL	AZN7034
	53	PANEL BRACKET	AZN7042
	54	SHIELD PAPER	AZN7088
	55	CD FUNC. KNOB (B)	AZA7017
	56	CD FUNC. KNOB (A)	AZA7018
	57	CD DISPLAY WINDOW	AZA7016
	58	CD DECODER PCB ASSY	AZW7012
	59	CD SUB I PCB ASSY	AZW7029
	60	CD SENSOR PCB ASSY	AZW7015
	61	CD SUB PCB ASSY	AZW7016
	62	CD CONTROL PCB ASSY	AZW7013
	63	CD LAMP PCB ASSY	AZW7014
	64	SCREW	BBZ26P030FMC
	65	W-FLAT-A-11 ZN3A	AZB7013
	66	SCREW	BBZ30P080FMC
	67	SCREW	CBZ30P060FMC
	68	SCREW	BBZ30P120FMC
	69	SCREW	BBZ30P060FMC
	70	E RING	AZB7007
	71	SCREW	PBZ30P100FMC
	72	SCREW	IBZ30P080FMC
	73	E RING	AZB7006
	74	SCREW	BBZ26P060FZK
	75	SCREW	CBZ26P080FZK
	76	SCREW	BBZ26P060FMC
	77	SCREW	CBZ30P050FZK
	78	DRAWER MOTOR ASSY	AZW7022
	79	T. T. MOTOR ASSY	AZW7023
	80	CD PLAYER ASSY	AZW7024
	81	FILTER PLATE	AZK7025
	82	DISPLAY HOLDER	AZA7023
	83	Pick up Assy	AZN 7099
	84	Limit Switch	AZS 7007
	85	Motor	AZX 7004
	86.	Chassis Assy	AZW 7058

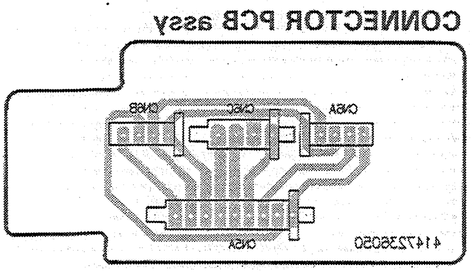


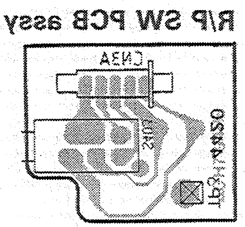
4. CONNECTION DIAGRAM

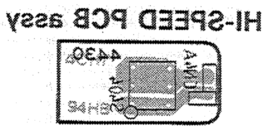

3
4
5
6
A
B
C
D
1
2
X−P30
SX−P30
S−P30
Speaker System
L
R
PDC−P30C
H/P PCB assy
F9
MAIN PCB assy
JK301
KUXJ Type Only
AC SUPPLY (A) PCB assy
F6
F2
S1
S3
AC POWER CORD
ADG1058
AC 120V/60Hz
CN1
F1
F8
F7
F3
F5
F4
SDXJC/NC Type Only
AC SUPPLY (B) PCB assy
BLD
WHT
BRN
GRY
RED
F6A
F2A
B2
B1
AC POWER CORD
ADG1051
AC 110/120-127/
220/240V
50/60Hz
SDXJC/NC
Type Only
F11
SDXJC/NC Type Only
VOL, SEL.
PCB assy
BLU
WHT
RED
BRN
GRY
FRONT PCB assy
CASS.
PCB assy
CN7
CN2
CN3
CN5
CN4
CN1
R/P SW PCB assy
CN3A
DECK assy
DECK 2
DECK 1
MOTOR
CONNECTOR
PCB assy
CN5A
CN6C
CN6B
CN4A
HI-SPEED PCB assy
CN10
CN8
SK001
CD CONTROL PCB assy
CN005
CD DECODER PCB assy
CN001
CN002
CN003
CN004
CN006
CN007
CD LAMP PCB assy
CN021A
CD SUB I PCB assy
CD SUB
PCB assy
CN013
CN009
CN010
CN012
CD SENSOR
PCB assy
DRAWER MOTOR assy
MOTOR
CD PLAYER assy
SW Box
T. T. MOTOR assy

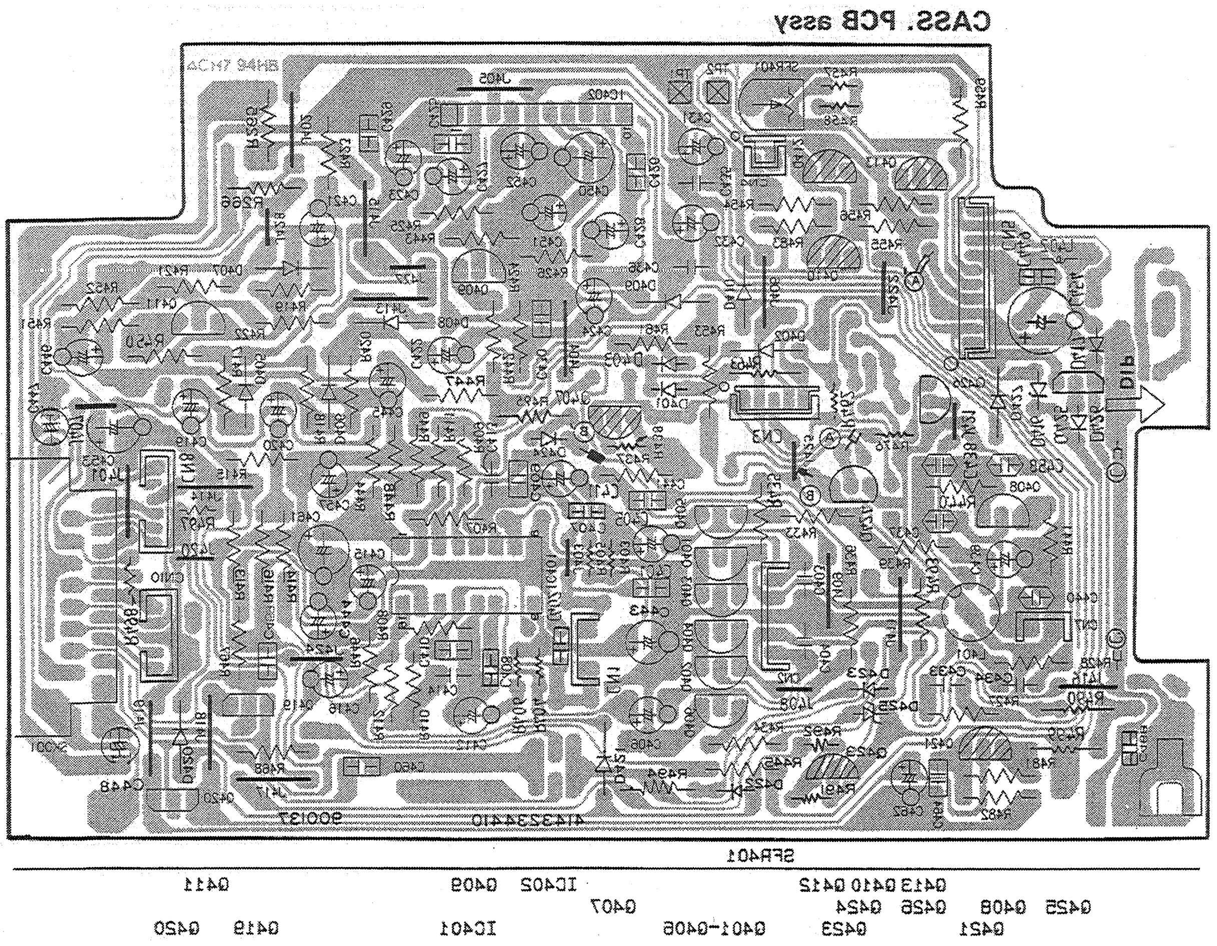
5. SCHEMATIC AND PCB DIAGRAMS

5.1 CASS. PCB ASSY, R/P SW PCB ASSY, HI-SPEED PCB ASSY AND CONNECTOR PCB ASSY


CONNECTOR PCB assy
CN6B
CN6C
CN6A
CN5A
414723605O

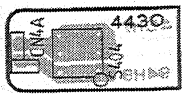

R/P SW PCB assy
CN3A
S2101
TP1
94HB


HI-SPEED PCB assy
4430
94HB

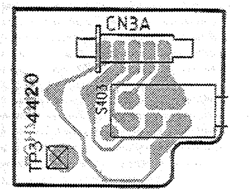

CASS. PCB assy
94HB
SFR401
Q411
Q409
IC402
Q413 Q410 Q412
Q407
Q424
Q426
Q408
Q425
IC401
Q401~Q406
Q423
Q421
Q420
Q419
Q418
DIP
900137
414323441O

- This diagram is viewed from the foil side.

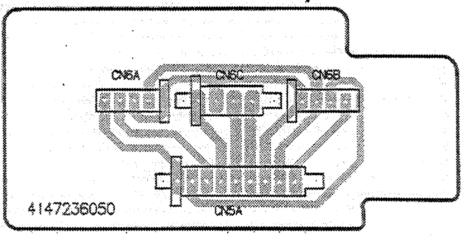
HI-SPEED PCB assy


4430
CN4A
S404

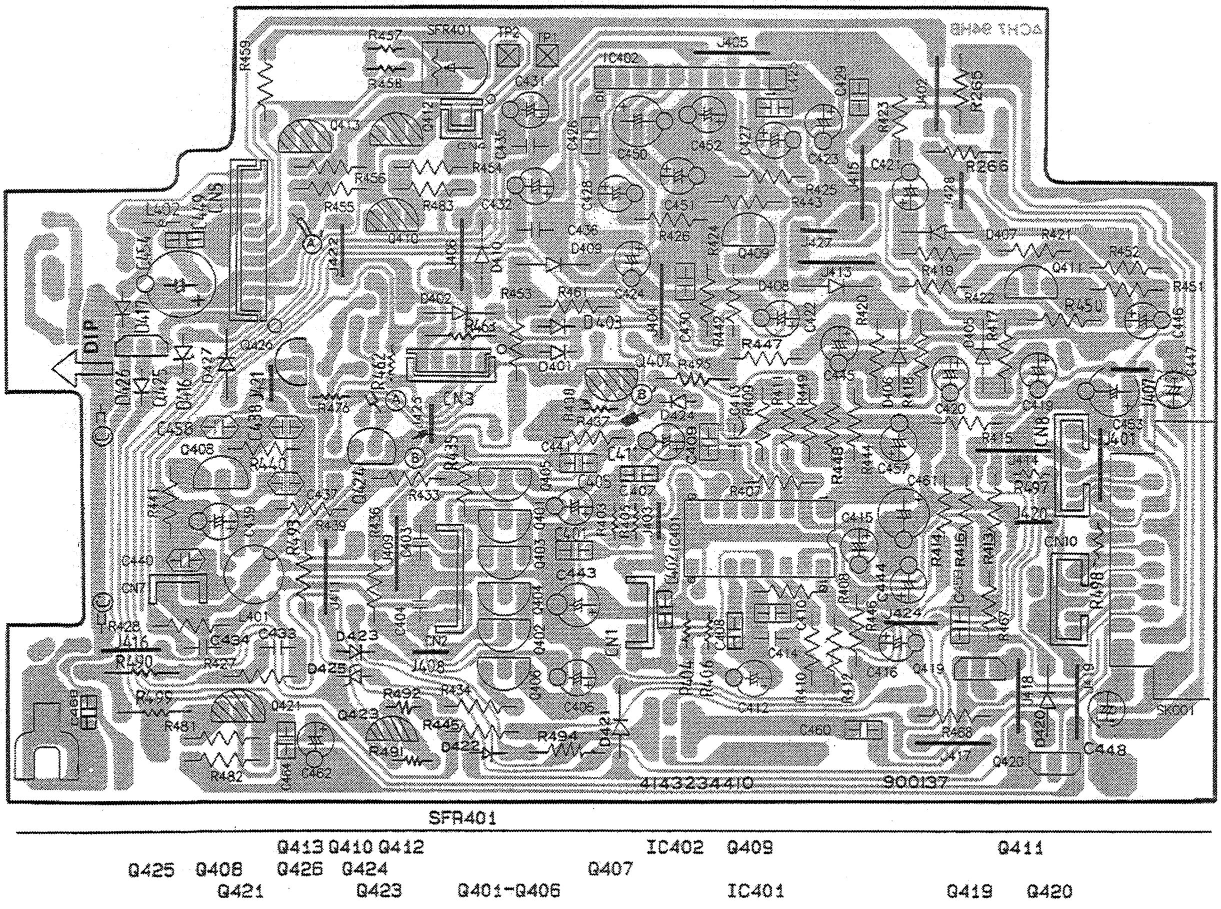
R/P SW PCB assy


CN3A
4420
S403
TP3

CONNECTOR PCB assy


CN6A
CN6C
CN6B
CN5A
4147236050

CASS. PCB assy


SFR401
TP2
TP1
IC402
J425
DIP
CN3
CN7
CN8
CN10
CN2
SK601
4143234410
900137
SFR401
Q413 Q410 Q412
Q425 Q408
Q426 Q424
Q421
Q423
Q401–Q406
Q407
IC402 Q409
IC401
Q411
Q419 Q420

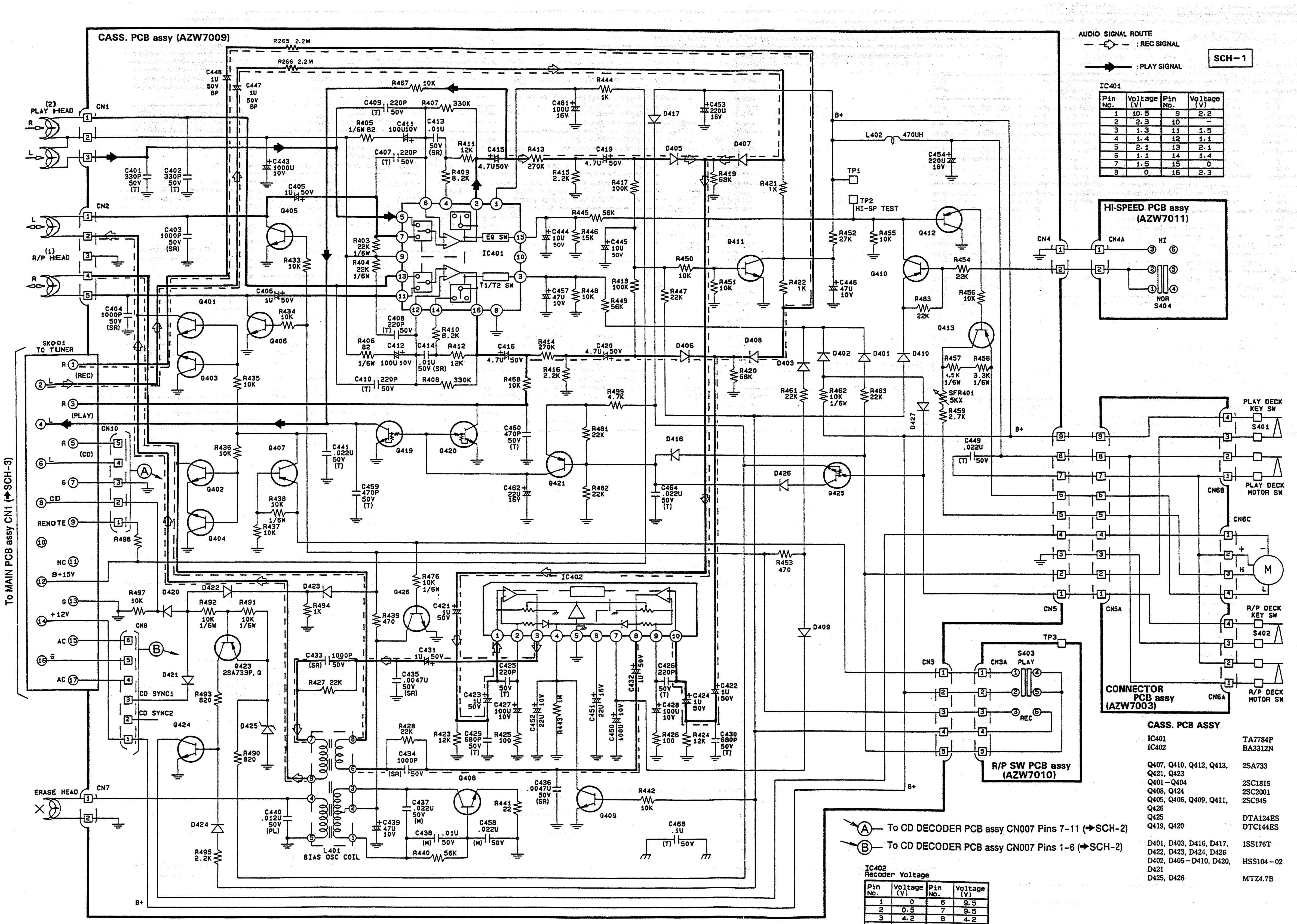
- This diagram is viewed from the mounted parts side.

Note: The parts which have been mounted on the PCB can be replaced with those shown with the corresponding wiring symbols listed in the following table.

PCB Pattern Diagram indication	Corresponding Part Symbol	Part Name
Q504	or	Transistor
Q215 D S G	D S G or D S G	FET
D203	D203	Diode
R237	R237	Resistor
C513	C513 +	Capacitor (Polarized)
C518	C518	Capacitor (Non-Polarized)

Others

PCB Pattern Diagram Indication	Part Name
IC	IC
S	Switch
L	Coil
CF	Filter
VR or SFR	Variable Resistor or Semi-Fixed Resistor


CASS. PCB assy (AZW7009)
(2) PLAY HEAD
(1) R/P HEAD
ERASE HEAD
SKO01 TO TUNER
To MAIN PCB assy CN1 (➔SCH-3)
IC401
IC402
EQ SW
T1/T2 SW
L401 BIAS OSC COIL
HI-SPEED PCB assy (AZW7011)
S404
HI
NOR
PLAY DECK KEY SW
PLAY DECK MOTOR SW
R/P DECK KEY SW
R/P DECK MOTOR SW
S401
S402
CONNECTOR PCB assy (AZW7003)
R/P SW PCB assy (AZW7010)
S403
PLAY
REC
TP1
TP2 HI-SP TEST
TP3
CN1
CN2
CN3
CN4
CN5
CN6B
CN6C
CN6A
CN7
CN8
CN10
B+
SCH-1

AUDIO SIGNAL ROUTE

- – –⇨– – : REC SIGNAL
- ——➡—— : PLAY SIGNAL

Ⓐ— To CD DECODER PCB assy CN007 Pins 7-11 (➔SCH-2)

Ⓑ— To CD DECODER PCB assy CN007 Pins 1-6 (➔SCH-2)

IC401

Pin No.	Voltage (V)	Pin No.	Voltage (V)
1	10.5	9	2.2
2	2.3	10	–
3	1.3	11	1.5
4	1.4	12	1.1
5	2.1	13	2.1
6	1.1	14	1.4
7	1.5	15	0
8	0	16	2.3

IC402
Recoder Voltage

Pin No.	Voltage (V)	Pin No.	Voltage (V)
1	0	6	9.5
2	0.5	7	9.5
3	4.2	8	4.2
4	0	9	0.6
5	9.5	10	0

CASS. PCB ASSY

IC401	TA7784P
IC402	BA3312N
Q407, Q410, Q412, Q413, Q421, Q423	2SA733
Q401–Q404	2SC1815
Q408, Q424	2SC2001
Q405, Q406, Q409, Q411, Q426	2SC945
Q425	DTA124ES
Q419, Q420	DTC144ES
D401, D403, D416, D417, D422, D423, D424, D426	1SS176T
D402, D405–D410, D420, D421	HSS104–02
D425, D426	MTZ4.7B

SCHEMATIC NOTES:

1. THE DC VOLTAGES WERE TAKEN WITH NO SIGNAL INPUT.
2. ALL VOLTAGES MEASURED FROM GROUND WITH A HIGH IMPEDANCE METER (10 MEGOHMS MIN).
3. RESISTANCE VALUES ARE IN OHMS (K-1000, M-MEGOHM).
4. UNLESS OTHERWISE NOTED, ALL RESISTORS ARE 1/6 WATT CARBON FILM, ±5% TOLERANCE
5. REFER TO PARTS LIST FOR VOLTAGE RATINGS OF CAPACITORS.
6. ⏚ =COMMON GROUND SYMBOL.
7. TO LOCATE CONNECTOR HOOKUPS MATCH THE ALPHA (OR NUMERIC) DESIGNATION TO THE CORRESPONDING ALPHA (OR NUMERIC) DESIGNATION (EXAMPLE : CONNECTOR A CONNECTS TO CONNECTOR A)
8. ——— =INDICATES SIGNAL PATH OF CIRCUIT
9. **SCH–□ ON THE SCHEMATIC DIAGRAM:**
   - SCH–□ indicates the drawing number of the schematic diagram. (SCH stands for schematic diagram.)

10. SWITCHES (Underline indicates switch position):

HI-SPEED PCB assy

S404	HI-NORM.

R/P SW PCB assy

S403	PLAY/REC

CD CONTROL PCB assy

S001	DISC
S002	REPEAT
S003	RANDOM
S004	▶Ⅱ
S005	⏏
S006	STOP
S007	M. SCAN
S009	TIME
S010	EDIT
S011	PROG
S012	SYNC
S013	▶▶I
S014	I◀◀
S015	▶▶
S016	◀◀

VOL. SEL. PCB assy
(SDXJC/NC TYPE ONLY)

S401	VOLTAGE SELECTOR 110/120-127/220/240V
S022	CHANNEL STEP 9kHz/10kHz

FRONT PCB assy

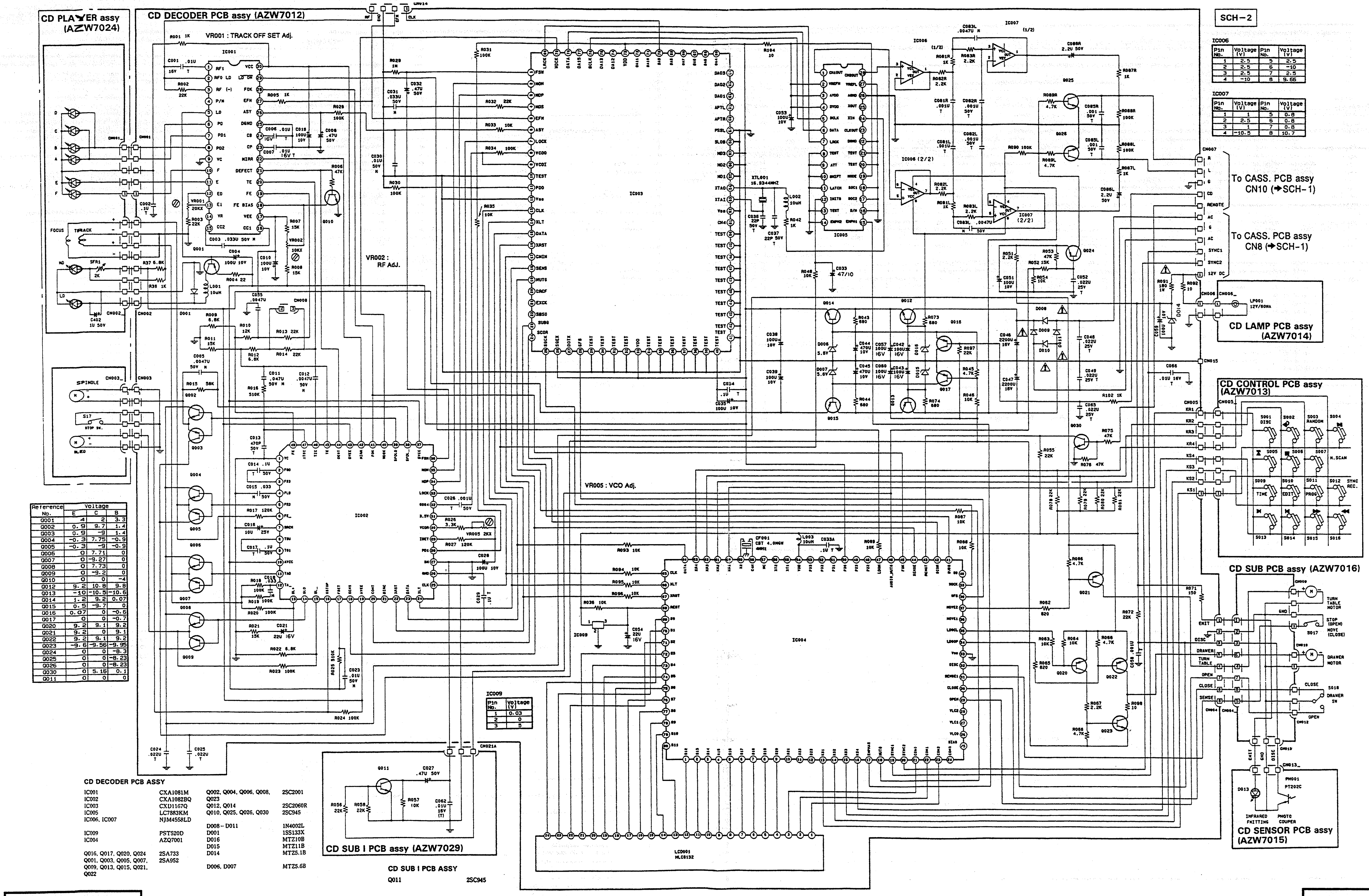
S001	1
S002	2
S003	3
S004	4
S005	5
S006	6
S007	7
S008	8
S009	TUNING △
S010	TUNING ▽
S011	VOLUME UP
S012	VOLUME DOWN
S013	AUTO/MANUAL
S014	MEMORY
S015	FM MODE
S016	BAND
S017	POWER
S018	TUNER
S019	CD
S020	TAPE
S021	AUX
S251	FLAT
S252	DISCO
S253	HALL
S254	LIVE
S255	MOVIE
S256	SURROUND
S257	B-BOOST

SCH–1

CASS. PCB ASSY, R/P SW PCB ASSY,
HI-SPEED PCB ASSY, CONNECTOR PCB ASSY

CASS. PCB ASSY, R/P SW PCB ASSY,
HI-SPEED PCB ASSY, CONNECTOR PCB ASSY
SCH–1

5.2 CD DECODER PCB ASSY, CD LAMP PCB ASSY, CD CONTROL PCB ASSY, CD SENSOR PCB ASSY, CD SUB PCB ASSY AND CD SUB I PCB ASSY


SCH-2
CD PLAYER assy (AZW7024)
CD DECODER PCB assy (AZW7012)
VR001 : TRACK OFF SET Adj.
VR002 : RF Adj.
VR005 : VCO Adj.
IC001
IC002
IC003
IC004
IC005
IC006 (1/2)
IC006 (2/2)
IC007 (1/2)
IC007 (2/2)
IC009
XTL001 16.9344MHZ
CF001 CST 4.0MGW
FOCUS
TRACK
SPINDLE
SLED
S17 STOP SW.
CN001
CN002
CN003
CN007
To CASS. PCB assy CN10 (➔SCH-1)
To CASS. PCB assy CN8 (➔SCH-1)
REMOTE
SYNC1
SYNC2
12V DC
LP001 12V/60MA
CD LAMP PCB assy (AZW7014)
CD CONTROL PCB assy (AZW7013)
S001 DISC
S002
S003 RANDOM
S004
S005
S006
S007 M.SCAN
S009 TIME
S010 EDIT
S011 PROG
S012 SYNC REC.
S013
S014
S015
S016
CD SUB PCB assy (AZW7016)
TURN TABLE MOTOR
STOP (OPEN)
MOVE (CLOSE)
S017
DRAWER MOTOR
S018 DRAWER SW
CLOSE
OPEN
CN013
PH001 PT202C
D013
INFRARED EMITTING
PHOTO COUPLER
CD SENSOR PCB assy (AZW7015)
LCD001 MLC8132
CN021A
Q011
R056 22K
R058 22K
R057 10K
C027 .47U 50V
C062 .01U 16V (T)
C024 .022U T
C025 .022U T
CD SUB I PCB assy (AZW7029)

IC006

Pin No.	Voltage (V)	Pin No.	Voltage (V)
1	2.5	5	2.5
2	2.5	6	−10
3	2.5	7	2.5
4	−10	8	9.66

IC007

Pin No.	Voltage (V)	Pin No.	Voltage (V)
1	1	5	0.8
2	2.5	6	0.8
3	1	7	0.8
4	−10.5	8	10.7

Reference No.	Voltage		
	E	C	B
Q001	4	2	3.3
Q002	0.9	9.7	1.4
Q003	0.9	−9	1.4
Q004	−0.3	7.75	−0.9
Q005	−0.3	−9	−0.9
Q006	0	7.71	0
Q007	0	−9.27	0
Q008	0	7.73	0
Q009	0	−9.2	0
Q010	0	0	−4
Q012	9.2	10.8	9.8
Q013	−10	−10.5	−10.6
Q014	1.2	9.2	0.07
Q015	0.5	−9.7	0
Q016	0.07	0	−0.6
Q017	0	0	−0.7
Q020	9.2	9.1	9.2
Q021	9.2	0	9.1
Q022	9.2	9.1	9.2
Q023	−9.6	−9.56	−9.95
Q024	0	0	−8.3
Q025	0	0	−8.23
Q026	0	0	−8.23
Q030	0	5.16	0.1
Q011	0	0	0

IC009

Pin No.	Voltage (V)
1	0.03
2	0
3	5

CD DECODER PCB ASSY

IC001	CXA1081M	Q002, Q004, Q006, Q008, Q023	2SC2001
IC002	CXA1082BQ	Q012, Q014	2SC2060R
IC003	CXD1167Q	Q010, Q025, Q026, Q030	2SC945
IC005	LC7883KM		
IC006, IC007	NJM4558LD	D008 – D011	1N4002L
IC009	PST520D	D001	1SS133X
IC004	AZQ7001	D016	MTZ10B
		D015	MTZ11B
		D014	MTZ5.1B
Q016, Q017, Q020, Q024	2SA733		
Q001, Q003, Q005, Q007, Q009, Q013, Q015, Q021, Q022	2SA952	D006, D007	MTZ5.6B

CD SUB I PCB ASSY

Q011	2SC945

SCH－2 CD DECODER PCB ASSY, CD LAMP PCB ASSY, CD CONTROL PCB ASSY, CD SENSOR PCB ASSY, CD SUB PCB ASSY, CD SUB I PCB ASSY

CD DECODER PCB ASSY, CD LAMP PCB ASSY, CD CONTROL PCB ASSY, CD SENSOR PCB ASSY, CD SUB PCB ASSY, CD SUB I PCB ASSY **SCH－2**

IC001

Pin No.	Voltage (V)	Pin No.	Voltage (V)	Pin No.	Voltage (V)
1	0	11	0	21	-4.21
2	0	12	0	22	0
3	0	13	-0.58	23	-1.84
4	0	14	0	24	-0.76
5	3.25	15	0	25	0
6	0	16	-1.5	26	2.51
7	0	17	-4.94	27	2.31
8	0	18	0	28	0
9	0	19	-0.2	29	0
10	0	20	0	30	5

IC002

Pin No.	Voltage (V)	Pin No.	Voltage (V)	Pin No.	Voltage (V)	Pin No.	Voltage (V)
1	0	13	0	25	5.1	37	4.98
2	0	14	0	26	0	38	0
3	0	15	0	27	2.5	39	1.4
4	0	16	0	28	2.5	40	2.5
5	-0.9	17	-4	29	2.24	41	0
6	0	18	4.9	30	2.3	42	0
7	0	19	-4.9	31	3.5	43	0
8	0	20	0.1	32	2	44	-4.2
9	0	21	4.9	33	0	45	0
10	4.98	22	5.1	34	0	46	0
11	0	23	0	35	0	47	0
12	0	24	5.1	36	2.7	48	0

IC003

Pin No.	Voltage (V)	Pin No.	Voltage (V)	Pin No.	Voltage (V)	Pin No.	Voltage (V)
1	0	21	0	41	0	61	1.26
2	5	22	0	42	0	62	0
3	3.2	23	1.3	43	0	63	0
4	8	24	0	44	0	64	0
5	2.5	25	5.13	45	0	65	0
6	2.5	26	5	46	0	66	0
7	5	27	2.5	47	0	67	0
8	2.4	28	0	48	0	68	0
9	2.3	29	0	49	0	69	0
10	0	30	0	50	0	70	4.99
11	2	31	0	51	2.48	71	0
12	0	32	0	52	0	72	0
13	5	33	5	53	2.4	73	4.99
14	5	34	0	54	0	74	0
15	5	35	0	55	0	75	2.5
16	5	36	0	56	5	76	0
17	0.1	37	0	57	0	77	2.48
18	5	38	0	58	0	78	2.7
19	0	39	0	59	0	79	2.5
20	5	40	0	50	0	80	2.5

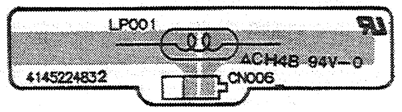
IC004

Pin No.	Voltage (V)	Pin No.	Voltage (V)	Pin No.	Voltage (V)	Pin No.	Voltage (V)
1	2.55	21	2.56	41	1.2	61	5
2	0	22	2.56	42	0	62	5
3	0	23	2.56	43	5	63	5
4	0	24	2.56	44	4.9	64	5
5	2.56	25	5	45	4.9	65	5
6	2.56	26	5	46	5	66	5
7	2.56	27	3.4	47	0	67	5
8	2.56	28	1.7	48	0	68	5
9	0	29	5	49	0	69	2.55
10	2.56	30	5.1	50	5	70	2.55
11	2.56	31	5	51	0	71	2.55
12	2.56	32	0.2	52	0	72	2.55
13	5	33	0	53	0	73	2.55
14	5	34	9.6	54	5.1	74	2.55
15	5	35	9.6	55	1.78	75	2.55
16	5	36	0	56	2.6	76	2.55
17	0	37	9.7	57	4.4	77	2.55
18	0	38	0	58	2.4	78	2.55
19	5.1	39	0	59	2.6	79	2.55
20	5.1	40	0	60	5	80	2.55

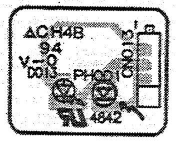
IC005

Pin No.	Voltage (V)	Pin No.	Voltage (V)	Pin No.	Voltage (V)	Pin No.	Voltage (V)
1	2.5	8	0	15	0	22	0
2	5	9	0	16	0	23	0
3	5	10	0	17	0	24	2.6
4	5	11	0	18	0	25	2.4
5	2.5	12	5	19	5	26	0
6	4.2	13	0	20	0	27	0
7	2.5	14	0	21	0	28	2.5

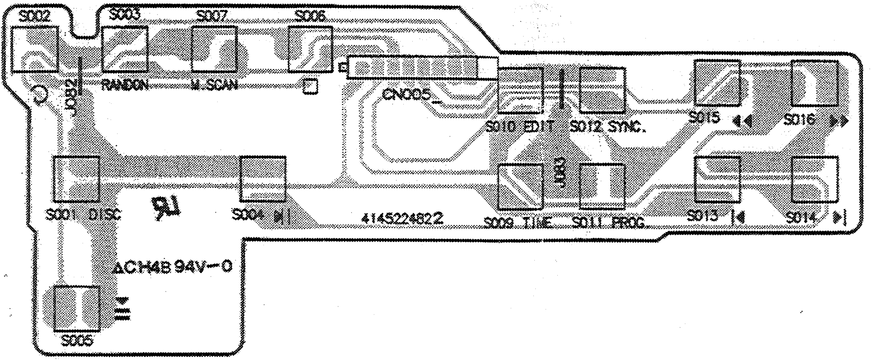
CD LAMP PCB assy


LP001
4145224832
CN006
ΔCH4B 94V-0

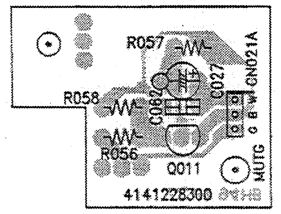
CD SENSOR PCB assy


ΔCH4B
94V-0
D013
PH001
CN013
4842

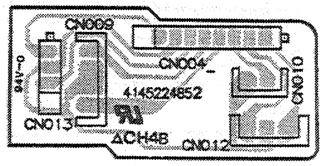
CD CONTROL PCB assy


S002
S003
S007
S006
J082
RANDON
M.SCAN
CN005
S010 EDIT
S012 SYNC.
S015 ◀◀
S016 ▶▶
J083
S001 DISC
S004 ▶‖
4145224822
S009 TIME
S011 PROG.
S013 |◀◀
S014 ▶▶|
ΔCH4B 94V-0
S005

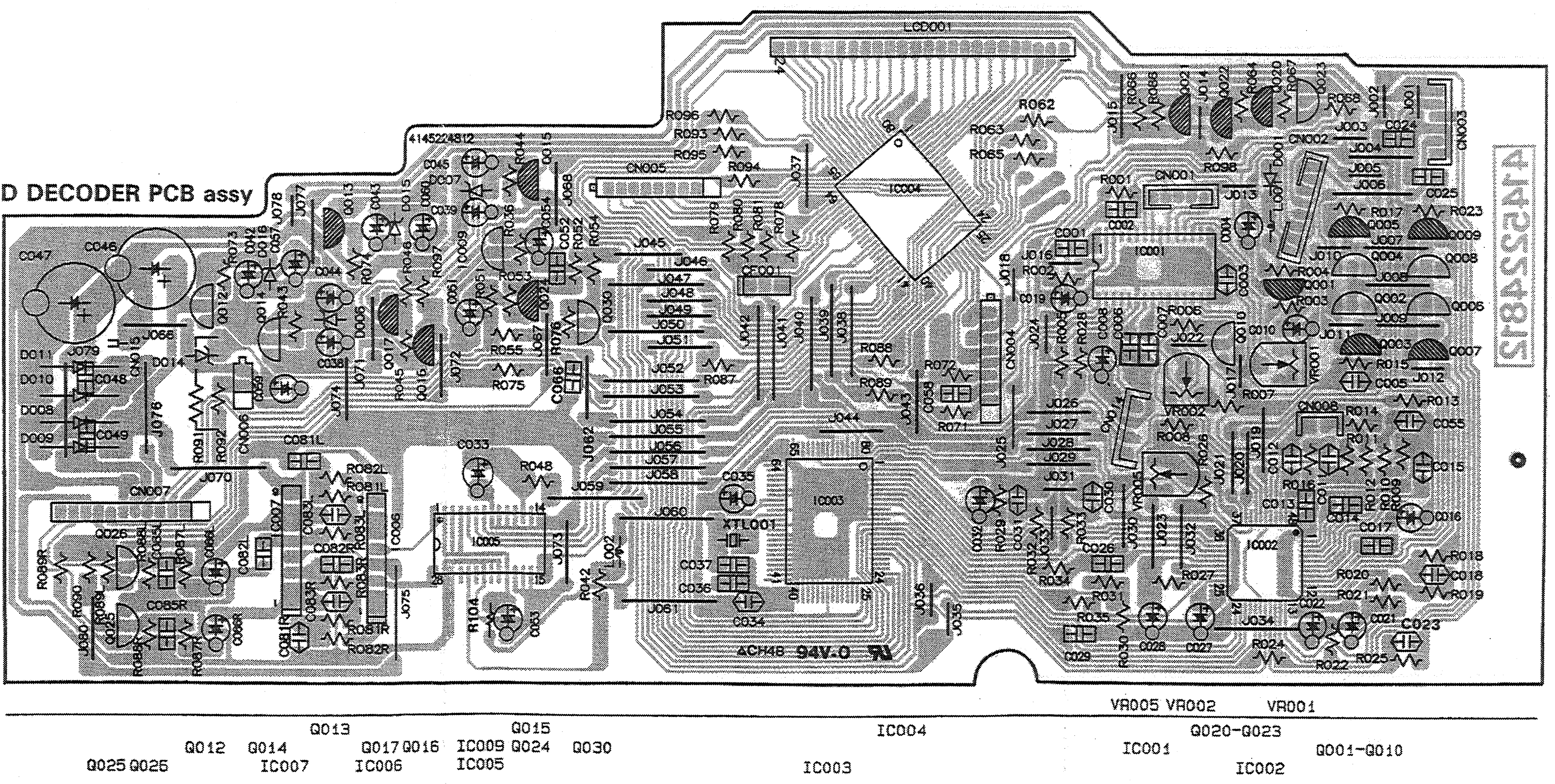
CD SUB I PCB assy


R057
R058
R056
C027
C060
CN021A
Q011
MUTG
4141228300

CD SUB PCB assy

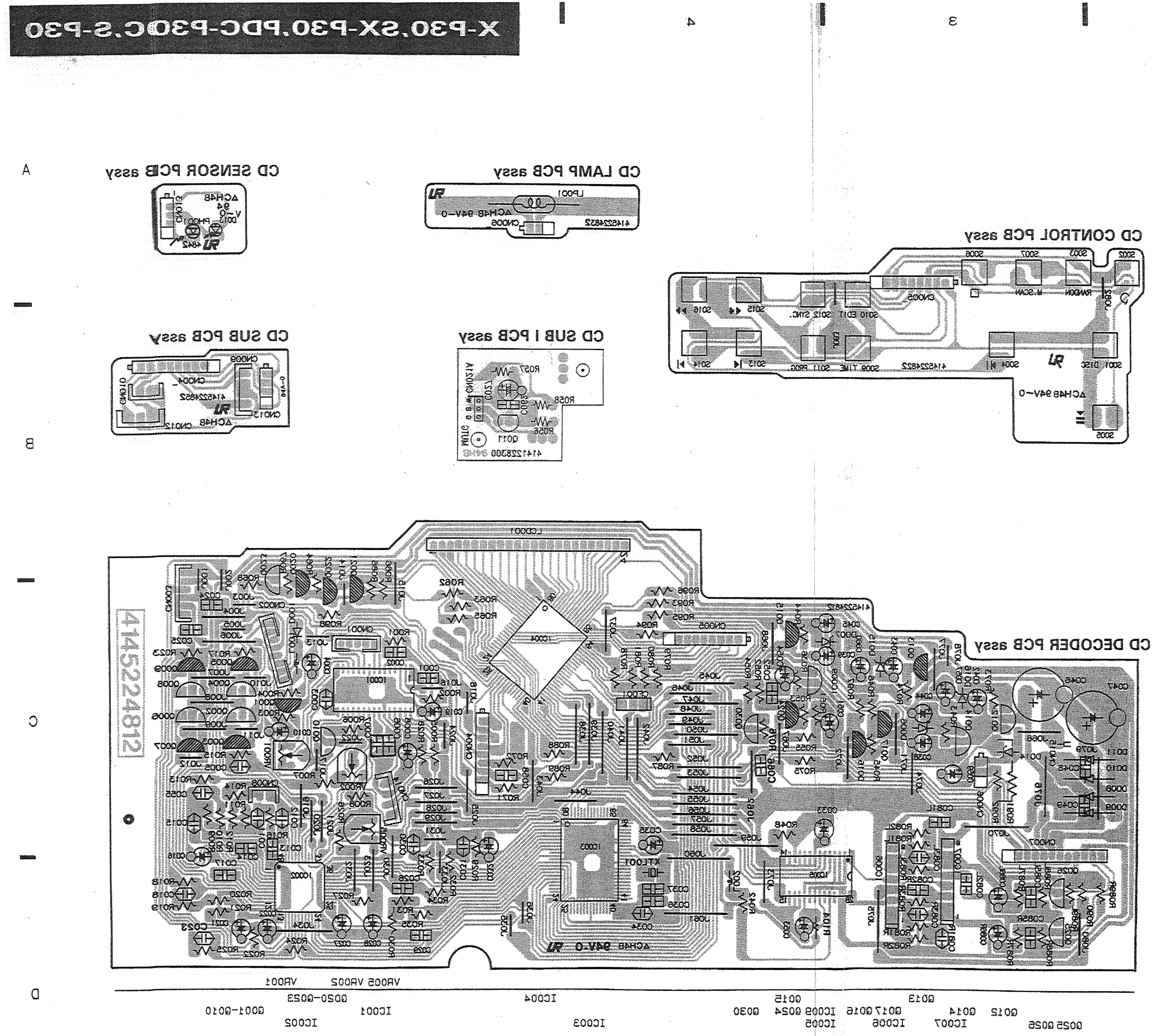

CN009
CN004
4145224852
CN010
CN013
ΔCH4B
CN012
94V-0

CD DECODER PCB assy


LCD001
4145224812
CN005
IC004
IC001
IC002
IC003
IC005
XTL001
CN007
CN002
CN001
CN006
VR001
VR002
C047
C046
D011
D010
D008
D009
ΔCH4B 94V-0
VR005 VR002
VR001
Q013
Q015
IC004
Q020-Q023
Q012
Q014
Q017 Q016
IC009 Q024
Q030
IC001
Q001-Q010
Q025 Q025
IC007
IC006
IC005
IC003
IC002

• This diagram is viewed from the mounted parts side.

A



B

C

D

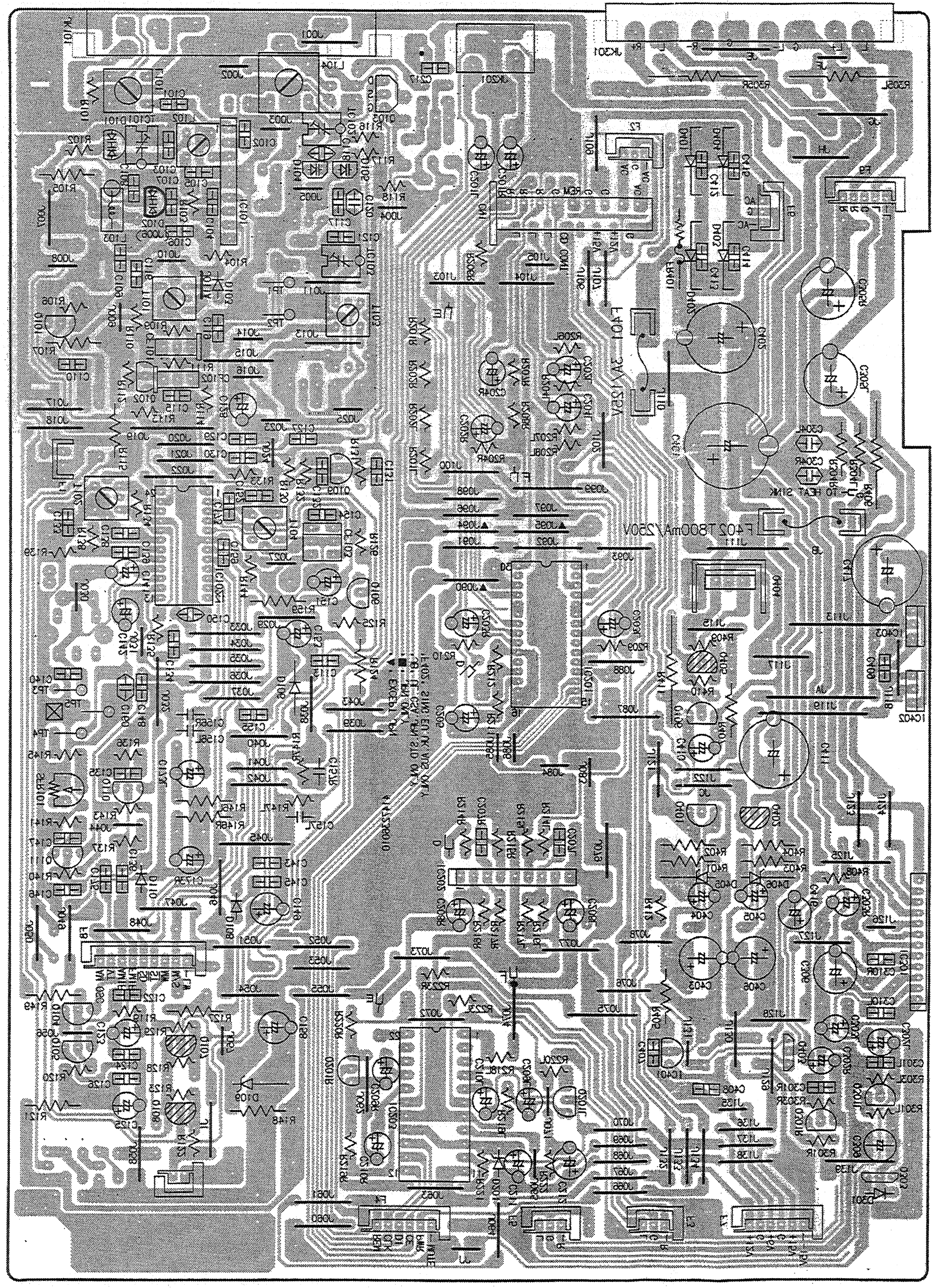
- This diagram is viewed from the foil side.

5.3 MAIN PCB ASSY, AC SUPPLY (A) PCB ASSY, AC SUPPLY (B) PCB ASSY AND VOL. SEL. PCB ASSY

- This diagram is viewed from the foil side.

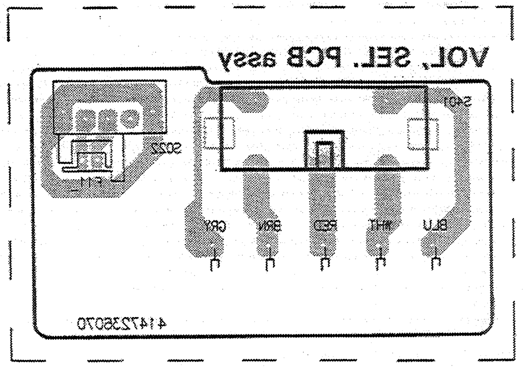
Q103
IC101
Q101
Q102
Q109
IC102
Q404
Q106
IC403
Q405 IC201
IC402
Q406
SFR101
Q401 Q110
Q402
IC202
Q111
IC301
Q403 Q104
IC401 Q107
Q105
Q301L Q201R
Q301R Q201L
IC203 Q108
Q303

MAIN PCB assy


JA301
JK201
F2
F3
TP1
TP2
F401 5A/125V
F402 T800mA/250V
TO HEAT SINK
TO SP
L
R

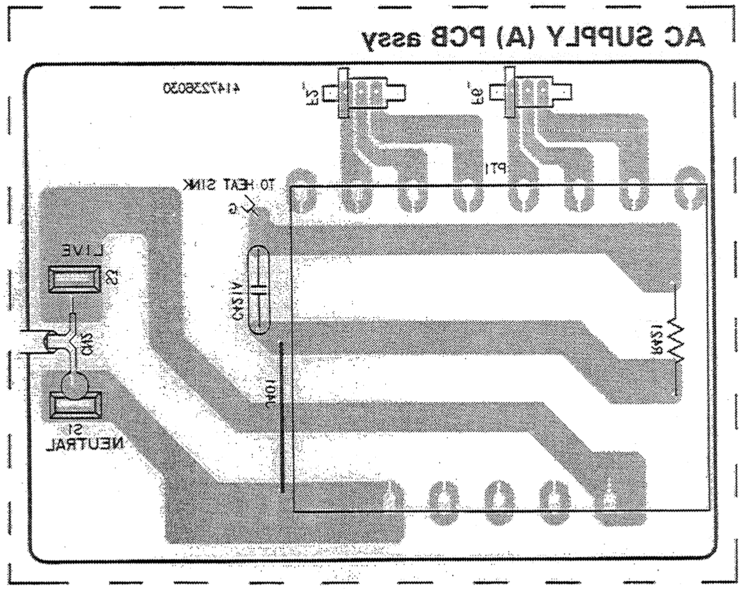
SDXJC/NC Type Only

VOL. SEL. PCB assy


S401
S022
BLU
WHT
RED
BRN
GRY
414723607D

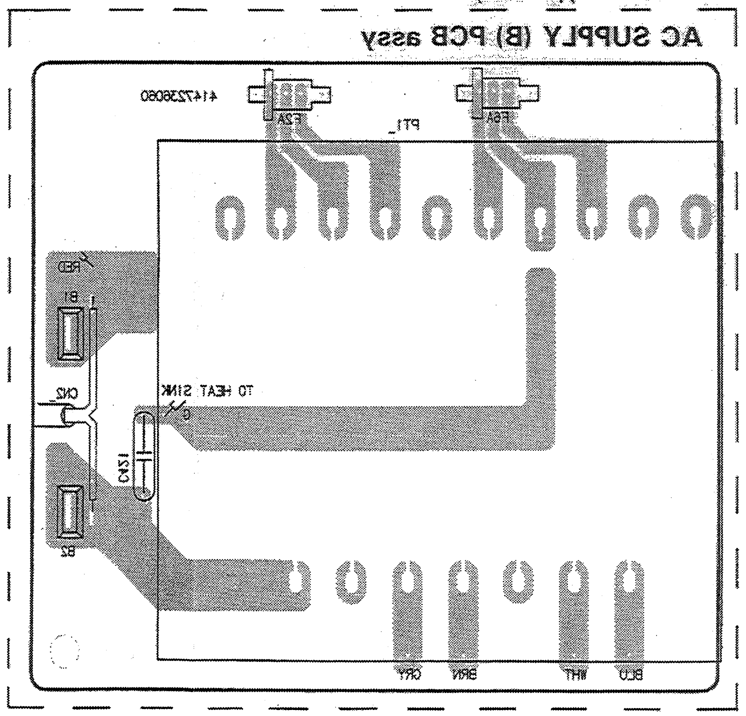
KUXJ Type Only

AC SUPPLY (A) PCB assy


414723603D
PT1
TO HEAT SINK
LIVE
NEUTRAL

SDXJC/NC Type Only

AC SUPPLY (B) PCB assy

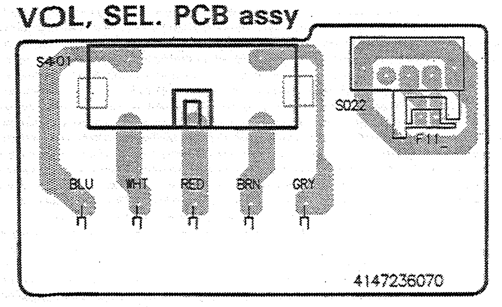

414723606D
PT1
TO HEAT SINK
RED
BLU
WHT
BRN
GRY

5.3 MAIN PCB ASSY, AC SUPPLY (A) PCB ASSY, AC SUPPLY (B) PCB ASSY AND VOL, SEL. PCB ASSY

• This diagram is viewed from the mounted parts side.

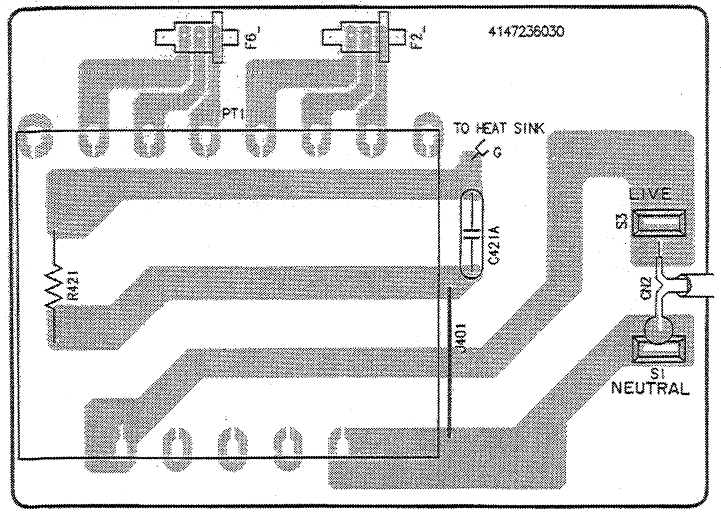
SDX JC/NC Type Only

VOL, SEL. PCB assy


S401
S022
F11
BLU
WHT
RED
BRN
GRY
4147236070

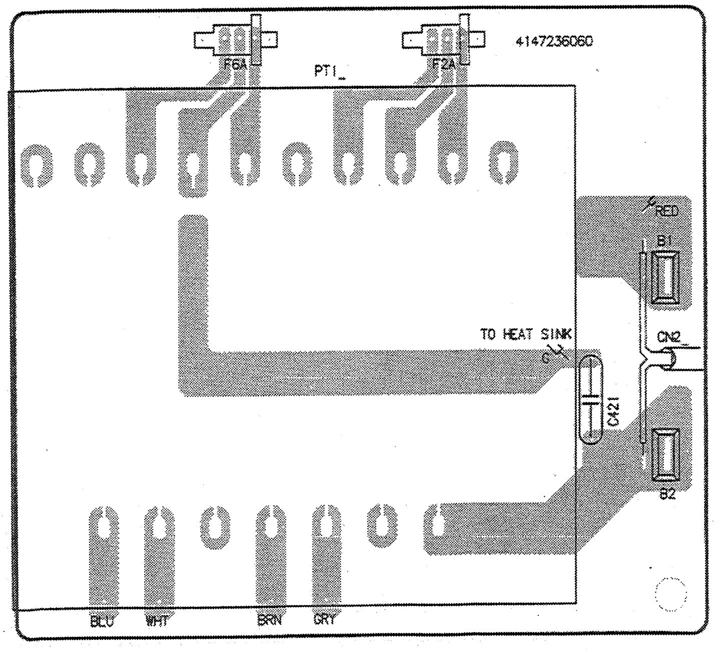
KUXJ Type Only

AC SUPPLY (A) PCB assy

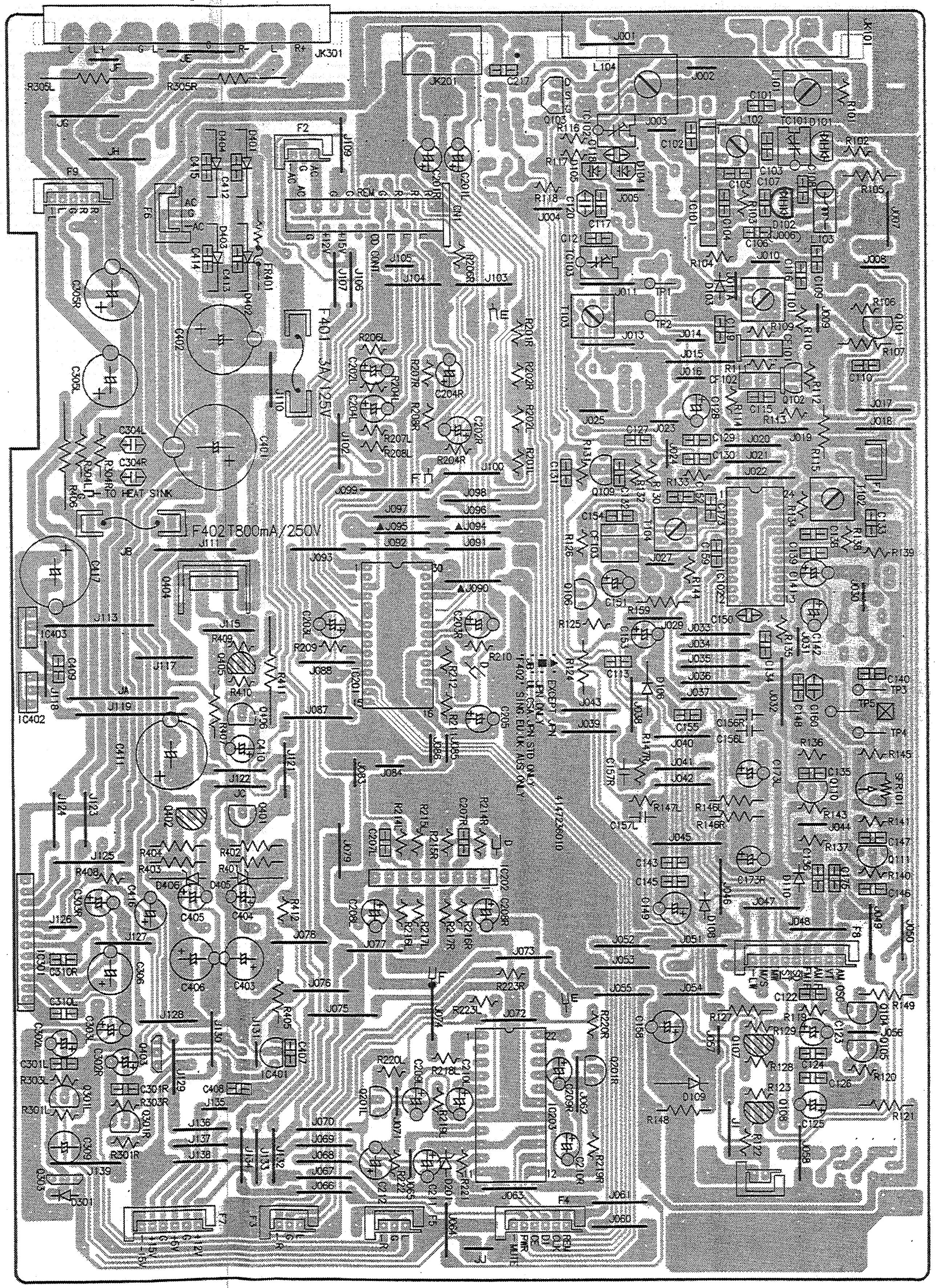

F6
F2
4147236030
PT1
TO HEAT SINK
G
LIVE
S3
C421A
R421
J401
CN2
S1
NEUTRAL

SDXJC/NC Type Only

AC SUPPLY (B) PCB assy

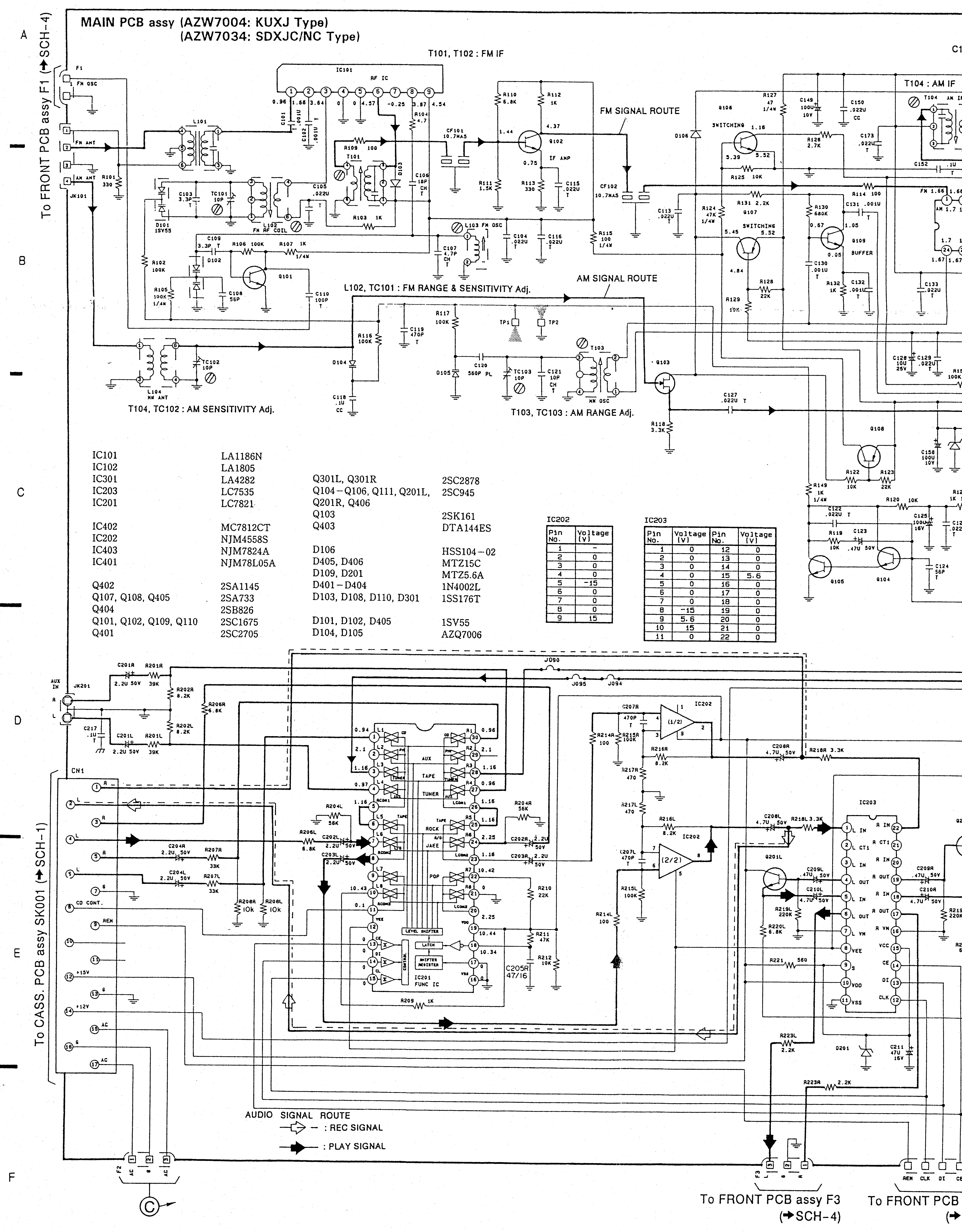

F6A
F2A
4147236060
PT1
RED
B1
TO HEAT SINK
G
CN2
C421
B2
BLU
WHT
BRN
GRY

MAIN PCB assy


JK301
R305L
R305R
JK201
J001
L104
K101
F2
F9
F401 3A/125V
F402 T800mA/250V
TO HEAT SINK
C305R
C305L
C402
C401
IC403
IC402
4147236010
F7
F4
F5
F3
F6

Q103
IC101
Q101
Q102
Q109
IC102
Q404 Q106
IC403
Q405 IC201
IC402
Q406
SFR101
Q401 Q110
Q402
IC202 Q111
IC301
Q403 Q104
IC401 Q107
Q105
Q301L Q201R
Q201L
Q301R IC203 Q108
Q303

MAIN PCB assy (AZW7004: KUXJ Type)
(AZW7034: SDXJC/NC Type)


To FRONT PCB assy F1 (➔SCH-4)
T101, T102 : FM IF
IC101 RF IC
FM SIGNAL ROUTE
T104 : AM IF
L102, TC101 : FM RANGE & SENSITIVITY Adj.
AM SIGNAL ROUTE
T104, TC102 : AM SENSITIVITY Adj.
T103, TC103 : AM RANGE Adj.
IF AMP
SWITCHING
BUFFER
AUX IN
JK201
To CASS. PCB assy SK001 (➔SCH-1)
CN1
CD CONT.
IC201 FUNC IC
IC202
IC203
AUDIO SIGNAL ROUTE
: REC SIGNAL
: PLAY SIGNAL
To FRONT PCB assy F3 (➔SCH-4)
To FRONT PCB

IC101	LA1186N
IC102	LA1805
IC301	LA4282
IC203	LC7535
IC201	LC7821
IC402	MC7812CT
IC202	NJM4558S
IC403	NJM7824A
IC401	NJM78L05A
Q402	2SA1145
Q107, Q108, Q405	2SA733
Q404	2SB826
Q101, Q102, Q109, Q110	2SC1675
Q401	2SC2705

Q301L, Q301R	2SC2878
Q104−Q106, Q111, Q201L, Q201R, Q406	2SC945
Q103	2SK161
Q403	DTA144ES
D106	HSS104−02
D405, D406	MTZ15C
D109, D201	MTZ5.6A
D401−D404	1N4002L
D103, D108, D110, D301	1SS176T
D101, D102, D405	1SV55
D104, D105	AZQ7006

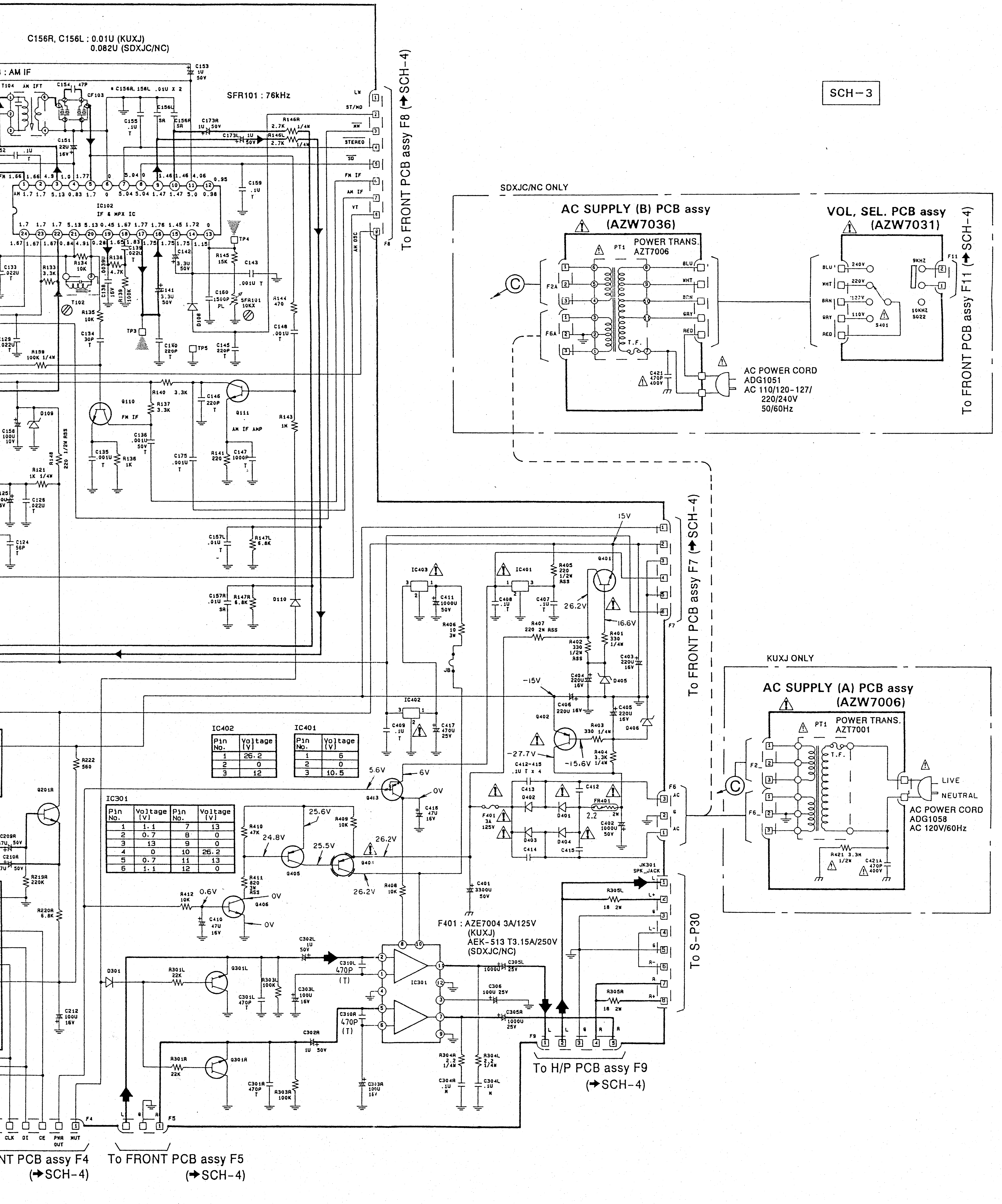
IC202

Pin No.	Voltage (V)
1	−
2	0
3	0
4	0
5	−15
6	0
7	0
8	0
9	15

IC203

Pin No.	Voltage (V)	Pin No.	Voltage (V)
1	0	12	0
2	0	13	0
3	0	14	0
4	0	15	5.6
5	0	16	0
6	0	17	0
7	0	18	0
8	−15	19	0
9	5.6	20	0
10	15	21	0
11	0	22	0

SCH−3 MAIN PCB ASSY, AC SUPPLY (A) PCB ASSY, AC SUPPLY (B) PCB ASSY, VOL. SEL. PCB ASSY


C156R, C156L : 0.01U (KUXJ)
0.082U (SDXJC/NC)
: AM IF
SFR101 : 76kHz
IC102
IF & MPX IC
FM IF
AM IF AMP
LW
ST/MO
MW
STEREO
SD
FM IF
AM IF
VT
AM OSC
To FRONT PCB assy F8 (➔SCH-4)
SCH-3
SDXJC/NC ONLY
AC SUPPLY (B) PCB assy
(AZW7036)
POWER TRANS.
AZT7006
AC POWER CORD
ADG1051
AC 110/120-127/
220/240V
50/60Hz
VOL, SEL. PCB assy
(AZW7031)
To FRONT PCB assy F11 (➔SCH-4)
To FRONT PCB assy F7 (➔SCH-4)
KUXJ ONLY
AC SUPPLY (A) PCB assy
(AZW7006)
POWER TRANS.
AZT7001
LIVE
NEUTRAL
AC POWER CORD
ADG1058
AC 120V/60Hz
F401 : AZE7004 3A/125V
(KUXJ)
AEK-513 T3.15A/250V
(SDXJC/NC)
To S-P30
To H/P PCB assy F9
(➔SCH-4)
CLK
DI
CE
PWR OUT
MUT
NT PCB assy F4
(➔SCH-4)
To FRONT PCB assy F5
(➔SCH-4)

IC402

Pin No.	Voltage (V)
1	26.2
2	0
3	12

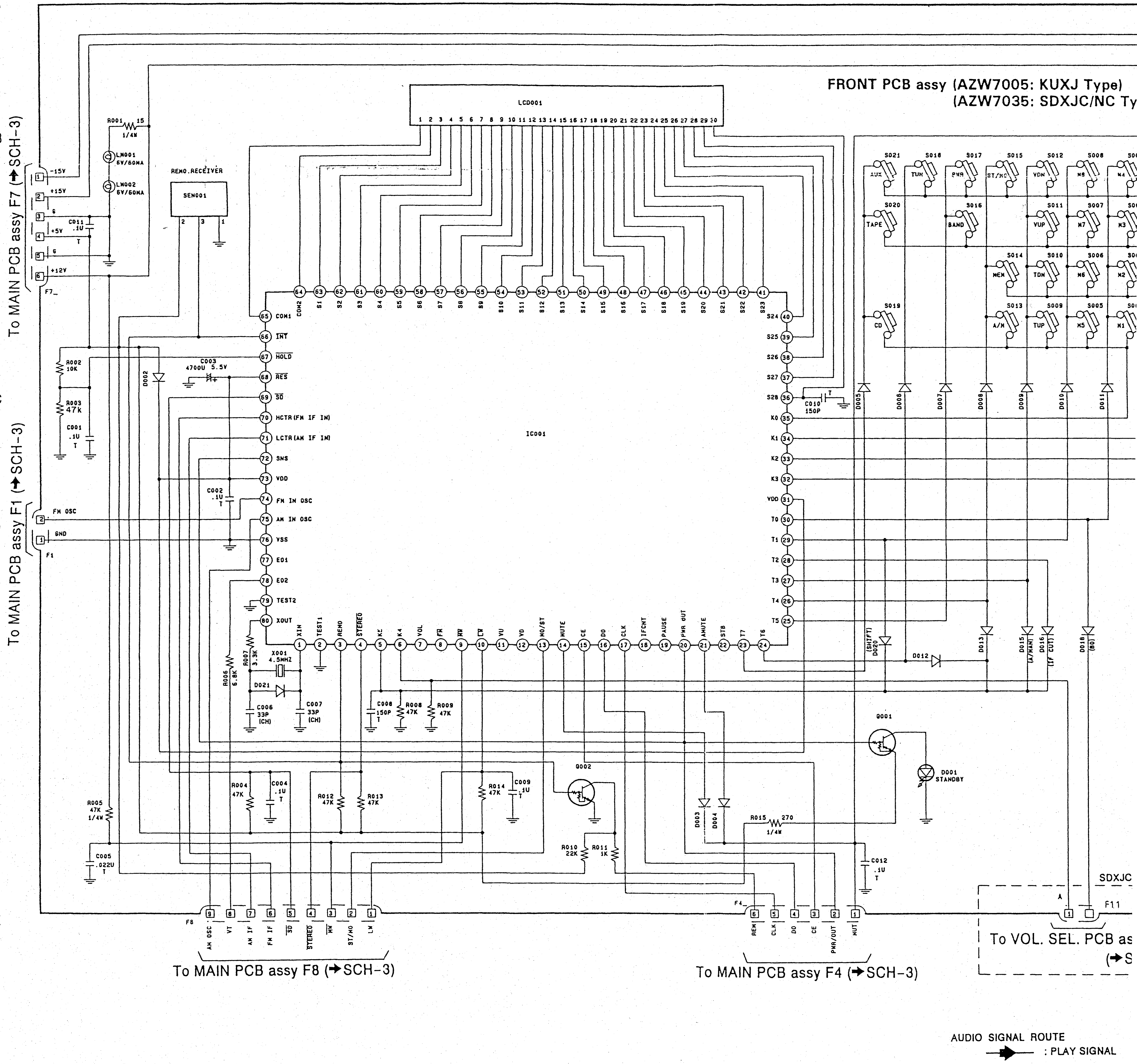
IC401

Pin No.	Voltage (V)
1	6
2	0
3	10.5

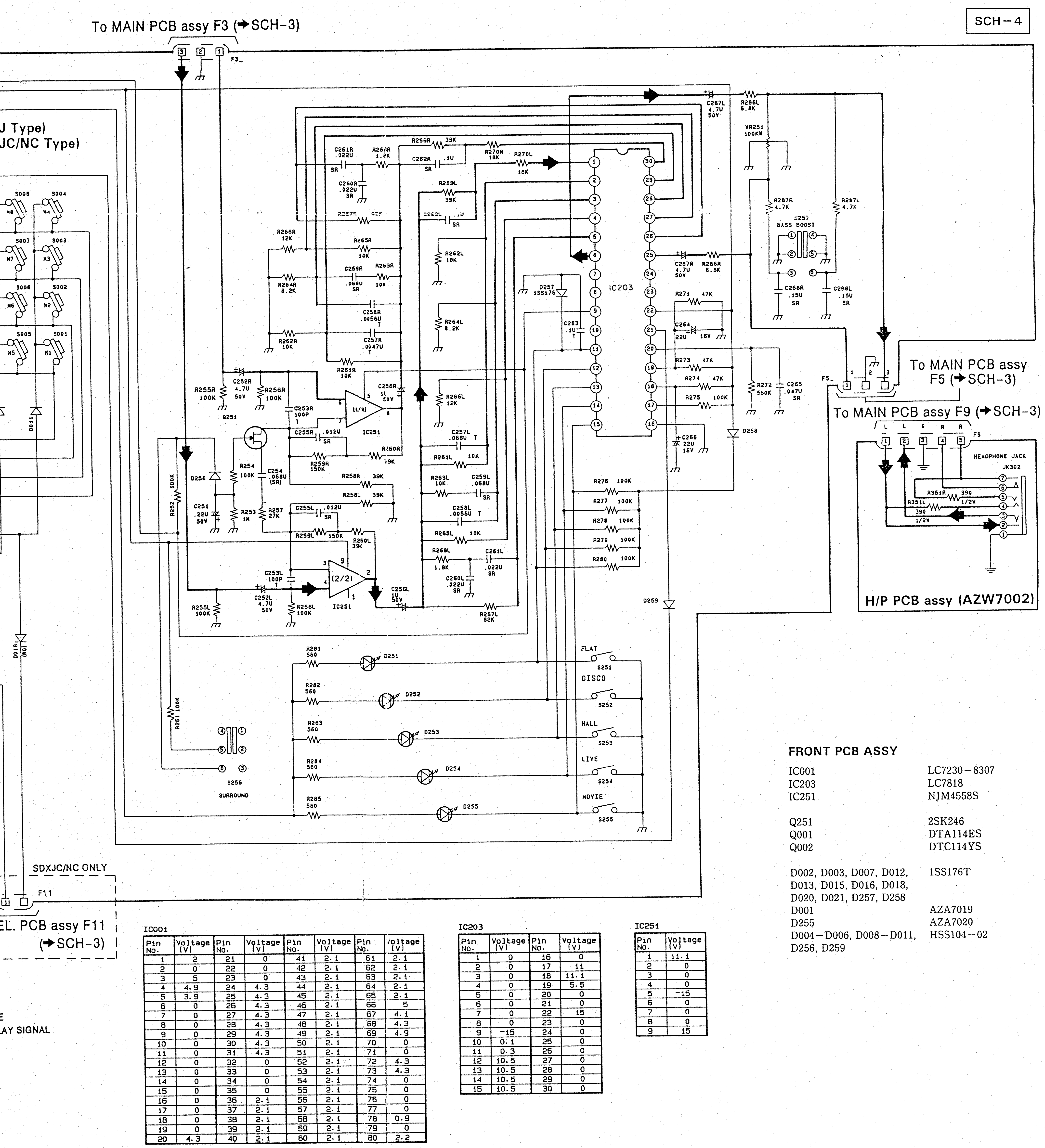
IC301

Pin No.	Voltage (V)	Pin No.	Voltage (V)
1	1.1	7	13
2	0.7	8	0
3	13	9	0
4	0	10	26.2
5	0.7	11	13
6	1.1	12	0

5.4 FRONT PCB ASSY AND H/P PCB ASSY


A
B
C
D
E
F
3
4
5
FRONT PCB assy (AZW7005: KUXJ Type)
(AZW7035: SDXJC/NC Ty
To MAIN PCB assy F7 (➔SCH-3)
To MAIN PCB assy F1 (➔SCH-3)
To MAIN PCB assy F8 (➔SCH-3)
To MAIN PCB assy F4 (➔SCH-3)
To VOL. SEL. PCB as
(➔S
SDXJC
F11
F7
F1
F8
F4
-15V
+15V
6
+5V
6
+12V
FM OSC
GND
AM OSC
VT
AM IF
FM IF
SD
STEREO
MW
ST/MO
LW
REM
CLK
DO
CE
PWR/OUT
MUT
R001 15 1/4W
LM001 6V/60MA
LM002 6V/60MA
REMO.RECEIVER
SEN001
C011 .1U
R002 10K
R003 47k
C001 .1U
D002
C003 4700U 5.5V
C002 .1U
LCD001
IC001
COM1
INT
HOLD
RES
SD
HCTR(FM IF IN)
LCTR(AM IF IN)
SNS
VDD
FM IN OSC
AM IN OSC
VSS
EO1
EO2
TEST2
XOUT
XIN
TEST1
REMO
STEREO
KE
K4
VOL
FM
MW
LW
VU
VD
MO/ST
MUTE
CE
DO
CLK
IFCNT
PAUSE
PWR OUT
AMUTE
STB
T7
T6
COM2
S1
S2
S3
S4
S5
S6
S7
S8
S9
S10
S11
S12
S13
S14
S15
S16
S17
S18
S19
S20
S21
S22
S23
S24
S25
S26
S27
S28
K0
K1
K2
K3
VDD
T0
T1
T2
T3
T4
T5
C010 150P
R006 6.8K
R007 3.3K
X001 4.5MHZ
D021
C006 33P (CH)
C007 33P (CH)
C008 150P
R008 47K
R009 47K
R004 47K
C004 .1U
R012 47K
R013 47K
R014 47K
C009 .1U
Q002
R010 22K
R011 1K
R005 47K 1/4W
C005 .022U
D003
D004
R015 270 1/4W
C012 .1U
Q001
D001 STANDBY
D005
D006
D007
D008
D009
D010
D011
D020 (SHIFT)
D012
D013
D015 (A/MAN)
D016 (IF CUT)
D018 (BO)
S021 AUX
S018 TUN
S017 PWR
S015 ST/MO
S012 VDN
S008 M8
M4
S020 TAPE
S016 BAND
S011 VUP
S007 M7
M3
S014 MEM
S010 TDN
S006 M6
M2
S019 CD
S013 A/M
S009 TUP
S005 M5
M1
AUDIO SIGNAL ROUTE
: PLAY SIGNAL

FRONT PCB ASSY, H/P PCB ASSY


SCH-4
To MAIN PCB assy F3 (➔SCH-3)
F3
J Type)
JC/NC Type)
S008
S004
S007
S003
S006
S002
S005
S001
D011
D018 (B0)
IC203
IC251
(1/2)
(2/2)
Q251
R252 100K
R251 100K
D256
C251 .22U 50V
R253 1M
R254 100K
C254 .068U (SR)
R257 27K
R255R 100K
R256R 100K
C252R 4.7U 50V
C253R 100P T
C255R .012U SR
R259R 150K
R258R 39K
R260R 39K
C256R 1U 50V
R266R 12K
R264R 8.2K
R262R 10K
R261R 10K
C261R .022U SR
R261R 1.8K
C260R .022U SR
R265R 10K
R263R 10K
C259R .068U SR
C258R .0056U T
C257R .0047U T
R269R 39K
C262R .1U SR
R270R 18K
R270L 18K
R269L 39K
C262L .1U SR
R262L 10K
R264L 8.2K
R266L 12K
C257L .068U T
R261L 10K
R263L 10K
C259L .068U SR
C258L .0056U T
R265L 10K
R268L 1.8K
C261L .022U SR
C260L .022U SR
R267L 82K
C256L 1U 50V
R255L 100K
R256L 100K
C252L 4.7U 50V
C253L 100P T
C255L .012U SR
R259L 150K
R258L 39K
R250L 39K
D257 1SS176
C263 .1U T
C267L 4.7U 50V
R286L 6.8K
VR251 100KW
R287R 4.7K
R287L 4.7K
S257 BASS BOOST
C268R .15U SR
C268L .15U SR
C267R 4.7U 50V
R286R 6.8K
R271 47K
C264 22U 16V
R273 47K
R274 47K
R275 100K
R272 560K
C265 .047U SR
C266 22U 16V
D258
R276 100K
R277 100K
R278 100K
R279 100K
R280 100K
D259
To MAIN PCB assy F5 (➔SCH-3)
F5
To MAIN PCB assy F9 (➔SCH-3)
L L G R R
F9
HEADPHONE JACK
JK302
R351R 390 1/2W
R351L 390 1/2W
H/P PCB assy (AZW7002)
R281 560
D251
FLAT
S251
R282 560
D252
DISCO
S252
R283 560
D253
HALL
S253
R284 560
D254
LIVE
S254
R285 560
D255
MOVIE
S255
S256
SURROUND
SDXJC/NC ONLY
F11
EL. PCB assy F11 (➔SCH-3)
E
AY SIGNAL

FRONT PCB ASSY

IC001	LC7230−8307
IC203	LC7818
IC251	NJM4558S
Q251	2SK246
Q001	DTA114ES
Q002	DTC114YS
D002, D003, D007, D012, D013, D015, D016, D018, D020, D021, D257, D258	1SS176T
D001	AZA7019
D255	AZA7020
D004−D006, D008−D011, D256, D259	HSS104−02

IC001

Pin No.	Voltage (V)	Pin No.	Voltage (V)	Pin No.	Voltage (V)	Pin No.	Voltage (V)
1	2	21	0	41	2.1	61	2.1
2	0	22	0	42	2.1	62	2.1
3	5	23	0	43	2.1	63	2.1
4	4.9	24	4.3	44	2.1	64	2.1
5	3.9	25	4.3	45	2.1	65	2.1
6	0	26	4.3	46	2.1	66	5
7	0	27	4.3	47	2.1	67	4.1
8	0	28	4.3	48	2.1	68	4.3
9	0	29	4.3	49	2.1	69	4.9
10	0	30	4.3	50	2.1	70	0
11	0	31	4.3	51	2.1	71	0
12	0	32	0	52	2.1	72	4.3
13	0	33	0	53	2.1	73	4.3
14	0	34	0	54	2.1	74	0
15	0	35	0	55	2.1	75	0
16	0	36	2.1	56	2.1	76	0
17	0	37	2.1	57	2.1	77	0
18	0	38	2.1	58	2.1	78	0.9
19	0	39	2.1	59	2.1	79	0
20	4.3	40	2.1	60	2.1	80	2.2

IC203

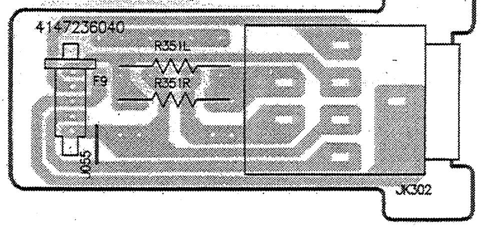
Pin No.	Voltage (V)	Pin No.	Voltage (V)
1	0	16	0
2	0	17	11
3	0	18	11.1
4	0	19	5.5
5	0	20	0
6	0	21	0
7	0	22	15
8	0	23	0
9	−15	24	0
10	0.1	25	0
11	0.3	26	0
12	10.5	27	0
13	10.5	28	0
14	10.5	29	0
15	10.5	30	0

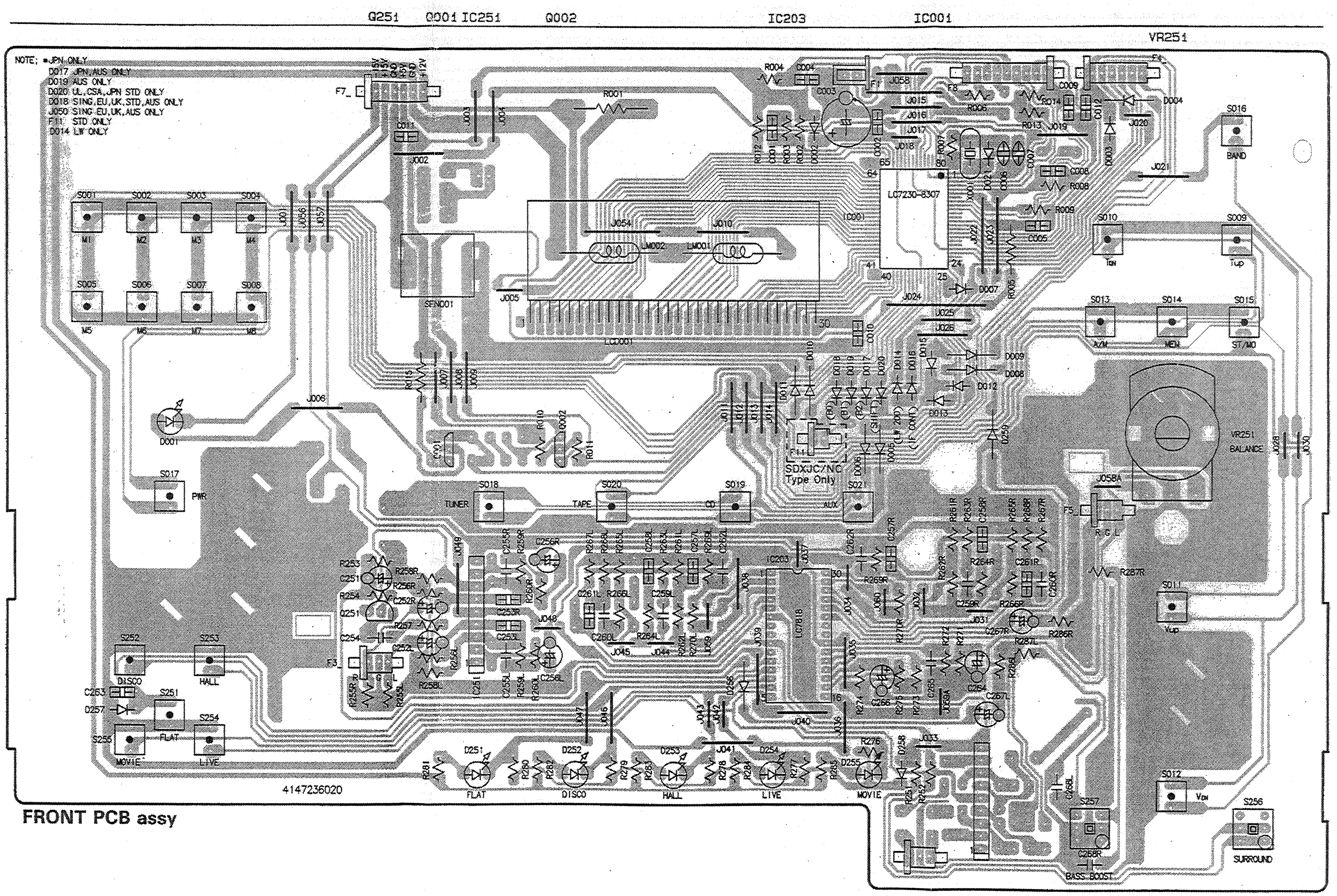
IC251

Pin No.	Voltage (V)
1	11.1
2	0
3	0
4	0
5	−15
6	0
7	0
8	0
9	15

- This diagram is viewed from the mounted parts side.

H/P PCB assy

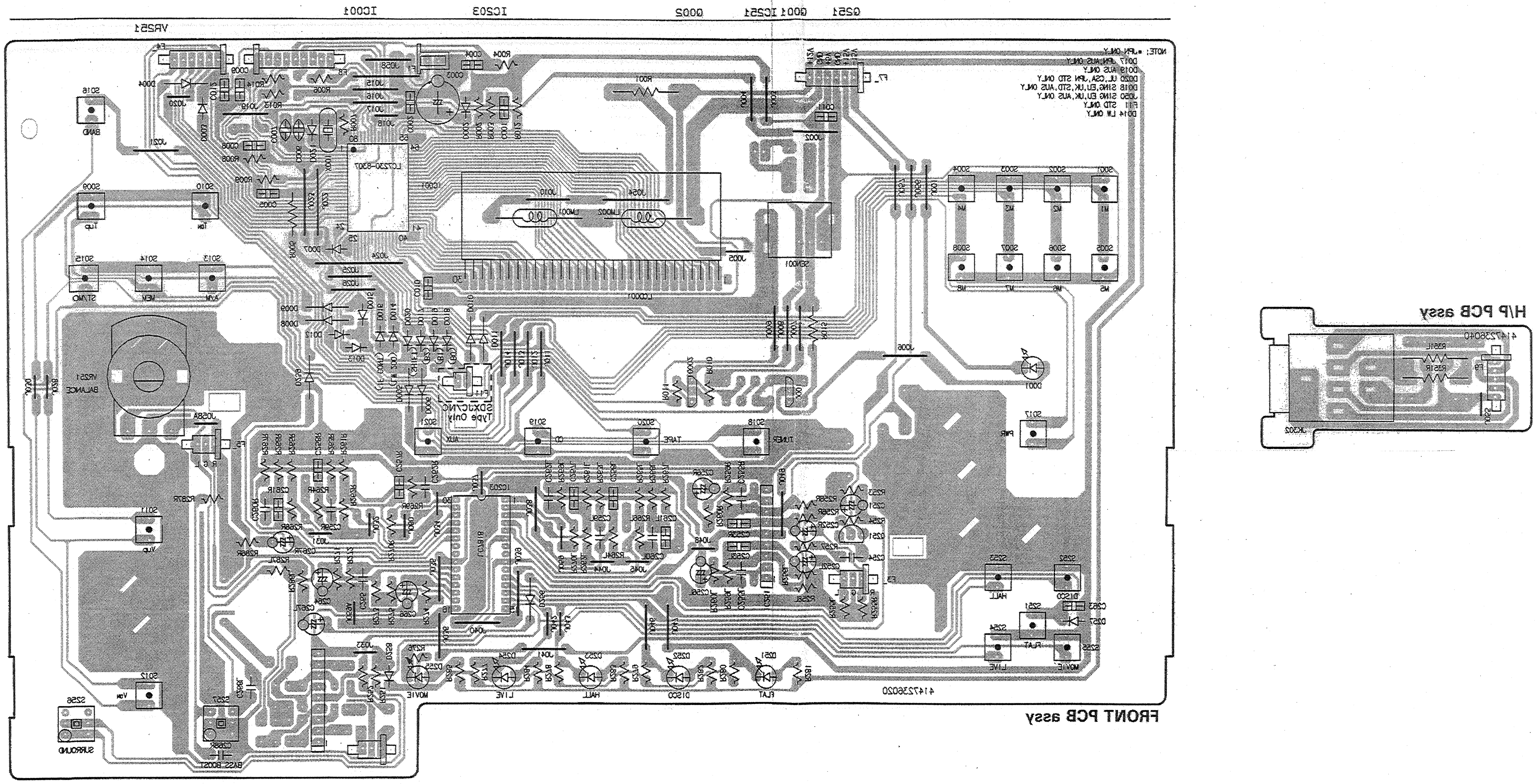

4147236040
R351L
R351R
F9
J055
JK302


NOTE; *JPN ONLY
D017 JPN,AUS ONLY
D019 AUS ONLY
D020 UL,CSA,JPN STD ONLY
D018 SING,EU,UK,STD,AUS ONLY
J050 SING,EU,UK,AUS ONLY
F11 STD ONLY
D014 LW ONLY

G251
Q001
IC251
Q002
IC203
IC001
VR251
LC7230-8307
LC7818
LCD001
SEN001
S001 M1
S002 M2
S003 M3
S004 M4
S005 M5
S006 M6
S007 M7
S008 M8
S017 PWR
S018 TUNER
S020 TAPE
S019 CD
S021 AUX
S016 BAND
S010 T DN
S009 T UP
S013 A/M
S014 MEM
S015 ST/MO
VR251 BALANCE
S011 V UP
S012 V DN
S256 SURROUND
S257 BASS BOOST
S252 DISCO
S253 HALL
S251 FLAT
S255 MOVIE
S254 LIVE
D251 FLAT
D252 DISCO
D253 HALL
D254 LIVE
D255 MOVIE
SDXJC/NC Type Only
4147236020

FRONT PCB assy

● This diagram is viewed from the foil side.


FRONT PCB assy
H/P PCB assy
IC001
IC203
Q002
Q001
IC251
Q251
VR251
VR251 BALANCE
LC7230-8307
LD001
SEN001
BAND
TAPE
TUNER
AUX
CD
PWR
HALL
DISCO
FLAT
LIVE
MOVIE
SURROUND
BASS BOOST
JK302

6. PCB PARTS LIST

NOTES :

- *Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.*
- *The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.*
- *Parts marked by "◉" are not always kept in stock. Their delivery time may be longer than usual or they may be unavailable.*
- *When ordering resistors, first convert resistance values into code form as shown in the following examples.*

Ex. 1 *When there are 2 effective digits (any digit apart from 0), such as 560 ohm and 47k ohm (tolerance is shown by J = 5%, and K = 10%).*

560Ω → 56 × 10^1 → 561 ······················ RD1/8PM $\boxed{5}\boxed{6}\boxed{1}$ J
47kΩ → 47 × 10^3 → 473 ······················ RD1/4PS $\boxed{4}\boxed{7}\boxed{3}$ J
0.5Ω → 0R5 ······································ RN2H $\boxed{0}\boxed{R}\boxed{5}$ K
1Ω → 010 ·· RS1P $\boxed{0}\boxed{1}\boxed{0}$ K

Ex. 2 *When there are 3 effective digits (such as in high precision metal film resistors).*

5.62kΩ → 562 × 10^1 → 5621 ················ RM1/4PC $\boxed{5}\boxed{6}\boxed{2}\boxed{1}$ F

6.1 FOR SX−P30

Mark	No. Description	Parts No.
	LIST OF ASSEMBLIES	
	MAIN PCB ASSY KITS (For KUXJ type)	AZW7001
	MAIN PCB ASSY KITS (For SDXJC/NC type)	AZW7033
	├─ MAIN PCB ASSY (For KUXJ type)	AZW7004
	│ MAIN PCB ASSY (For SDXJC/NC type)	AZW7034
	├─ FRONT PCB ASSY (For KUXJ type)	AZW7005
	│ FRONT PCB ASSY (For SDXJC/NC type)	AZW7035
	├─ AC SUPPLY (A) PCB ASSY (KUXJ type only)	AZW7006
	├─ AC SUPPLY (B) PCB ASSY (SDXJC/NC type only)	AZW7036
	├─ VOL, SEL. PCB ASSY (SDXJC/NC type only)	AZW7031
	└─ H/P PCB ASSY	AZW7002
	MAIN PCB ASSY	
	SEMICONDUCTORS	
	IC101	LA1186N
	IC102	LA1805
	IC301	LA4282
	IC203	LC7535
	IC201	LC7821
	IC402	MC7812CT
	IC202	NJM4558S
	IC403	NJM7824A
	IC401	NJM78L05A
⚠	Q402	2SA1145
	Q107, Q108, Q405	2SA733
⚠	Q404	2SB826

Mark	No. Description	Parts No.
	Q101, Q102, Q109, Q110	2SC1675
⚠	Q401	2SC2705
	Q301L, Q301R	2SC2878
	Q104−Q106, Q111, Q201L, Q201R, Q406	2SC945
	Q103	2SK161
	Q403	DTA144ES
	D106	HSS104−02
	D405, D406	MTZ15C
	D109, D201	MTZ5.6A
	D401−D404	1N4002L
	D103, D108, D110, D301	1SS176T
	D101, D102, D405	1SV55
	D104, D105	AZQ7006
	COILS	
	L103	AZT1072
	L102	AZT1074
	L104	AZT7002
	L105	AZT7003
	L101	AZT7005
	T101	AZT1080
	T102	AZT1081
	T104	AZT1082
	CF101, CF102	AZT1091
	CF103	AZT7004
	CAPACITORS	
	TC101−TC103 (10p)	ACM−018
	C152, C155, C159, C217, C407−C409	AZC7004
	C401	AZC7015
	C121	CCPUCH100J50
	C106	CCPUCH180J50
	C107	CCPUCH4R7K50

Mark	No.	Description	Parts No.
	C134		CCPUSL300J50
	C103, C109		CCPUSL3R3K50
	C154		CCPUSL470J50
	C108, C124		CCPUSL560J50
	C153, C173L, C173R, C302L, C302R		CEAS010M50
	C128		CEAS100M25
	C149, C158		CEAS101M10
	C125, C212, C303L, C303R		CEAS101M16
	C306		CEAS101M25
	C305L, C305R		CEAS102M25
	C402, C411		CEAS102M50
	C151		CEAS220M16
	C403−C406		CEAS221M16
	C201L, C201R−C204L, C204R		CEAS2R2M50
	C141, C142		CEAS3R3M50
	C205, C211, C410, C416		CEAS470M16
	C407		CEAS471M50
	C208L, C208R, C210L, C210R		CEAS4R7M50
	C123, C209L, C209R		CEASR47M50
	C150		CKCYF223Z50
	C156L, C156R	(For KUXJ type)	CKDYX103M25
	C156L, C156R	(For SDXJC/NC type)	CKDYX822M25
	C157L, C157R		CKDYX103M25
	C118		CKDYX104M25
	C110		CKPUYB101K50
	C101, C102, C130−C132, C135, C136, C143, C147, C148, C175		CKPUYB102K50
	C140, C145, C146		CKPUYB221K50
	C119, C207L, C207R, C301L, C301R, C310L, C310R		CKPUYB471K50
	C104, C105, C113, C115, C116, C122, C126, C127, C129, C133, C139, C173, C412−C415		CKPUYF223Z25
	C138		CKPUYX392M16
	C304L, C304R		CQMA104K50
	C160		CQMA152J50
	C120		CQMA561J50

RESISTORS

Mark	No.	Description	Parts No.
	SFR101		VRTP6VS103
	R401		AZC7001
	R148, R405		AZC7002
	R115		RD1/4PM101J
	R107, R121, R149		RD1/4PM102J
	R105, R159		RD1/4PM104J
	R146L, R146R		RD1/4PM272J
	R304L, R304R		RD1/4PM2R2J
	R401, R403		RD1/4PM331J
	R404		RD1/4PM332J
	R206		RD1/4PM394J
	R127		RD1/4PM470J
	R402		RS2LMF331J
	R124		RD1/4PM473J
	R305L, R305R		RS2LMF180J
	R407		RS2LMF221J
	R406		RS3LMF100J
	R411		RS3LMF821J
		Other Resistors	RD1/8PM□□□J

OTHERS

Mark	No.	Description	Parts No.
	J201		AZK7015
	J101		AZK7016
	J301		AZK7017
	F1		AZK1073
	F8		AZK7009
	F9		AZK7010
	CN1		AZK7014
	F2, F3, F5, F6		AZK7018
	F4, F7		AZK7019
	H401	FUSE HOLDER	AZK7021
		EARTH TER ASSY	AZK7029
		EARTH TERMINAL (S)0	AZK7031
		LEAD WIRE	AZK7032
		INSULATOR SIL.	AZN7067

FRONT PCB ASSY

SEMICONDUCTORS

Mark	No.	Description	Parts No.
	IC001		LC7230−8307
	IC203		LC7818
	IC251		NJM4558S
	Q251		2SK246
	Q001		DTA114ES
	Q002		DTC114YS
	D002, D003, D007, D012, D013, D015, D016, D018, D020, D021, D257, D258		1SS176T
	D001		AZA7019
	D255		AZA7020
	D004−D006, D008−D011, D256, D259		HSS104−02

SWITCHES

Mark	No.	Description	Parts No.
	S001−S021, S251−S255		ASG1029
	S256, S257		AZS1079

CAPACITORS

Mark	No.	Description	Parts No.
	C001, C002, C004, C009, C011, C012, C263		AZC7004
	C003		AZC7005
	C265		AZC7006
	C262L, C262R		AZC7007
	C254, C259L, C259R		AZC7008
	C006, C007		AZC7009
	C260L, C260R, C261L, C261R		AZC7016
	C264, C266		CEAS220M16
	C252L, C252R, C267L, C267R		CEAS4R7M50
	C256L, C256R		CEJA010M50

Mark	No. Description	Parts No.
	C251	CEJAR22M50
	C255L, C255R	CKCYX123M16
	C268L, C268R	CKCYX154M16
	C253L, C253R	CKPUYB101K50
	C008, C010	CKPUYB151K50
	C005	CKPUYF223Z25
	C257L, C257R	CKPUYX472M16
	C258L, C258R	CKPUYX562M16
	RESISTORS	
	VR251	AZC7010
	R001	RD1/4PM150J
	R015	RD1/4PM271J
	R005	RD1/4PM473J
	Other Resistors	RD1/8PM☐☐☐J
	OTHERS	
	LCD001	AZA7021
	X001 (4.5MHz)	AZC1263
	LM001, LM002	AZE7006
	SEN001	AZE7007
	F3, F5	AZK7005
	F8	AZK7007
	F1	AZK7020
	F4	AZK7027
	F7	AZK7028
	F11 (SDXJC/CN type only)	AZK7033
	DISPLAY CHASSIS	AZN7069

AC SUPPLY (A) PCB ASSY (KUXJ Type Only)

	CAPACITOR	
⚠	C421A (470p)	ACG−508
	RESISTORS	
⚠	R421 (3.3M)	RN1/2PC3304F

AC SUPPLY (B) PCB ASSY (SDXJC/NC Type Only)

	CAPACITOR	
⚠	C421A (470p/400V)	AZC7014

VOL, SEL. SW PCB ASSY (SDXJC/NC Type Only)

	SWITCHES	
⚠	S401 VOLTAGE SELECTOR	AZS7005
	S022 SLIDE SWITCH (9k/10k)	AZS7006

Mark	No. Description	Parts No.
	OTHERS	
	F11 (2P)	AZK7011
	LEAD WIRE (RED)	AZK7034
	LEAD WIRE (BLU)	AZK7035
	LEAD WIRE (BRN)	AZK7036
	LEAD WIRE (WHT)	AZK7037
	LEAD WIRE (GRY)	AZK7038

H/P PCB ASSY

H/P PCB Assy has no service part.

6.2 FOR PDC−P30C

Mark	No. Description	Parts No.
	LIST OF ASSEMBLIES	
	CASS. PCB ASSY KITS	AZW7007
	├ CASS. PCB ASSY	AZW7009
	├ R/P SW PCB ASSY	AZW7010
	├ HI-SPEED PCB ASSY	AZW7011
	└ CONNECTOR PCB ASSY	AZW7003
	CD DECODER PCB ASSY KITS	AZW7008
	├ CD DECODER PCB ASSY	AZW7012
	├ CD CONTROL PCB ASSY	AZW7013
	├ CD LAMP PCB ASSY	AZW7014
	├ CD SENSOR PCB ASSY	AZW7015
	└ CD SUB PCB ASSY	AZW7016
	CD SUB I PCB ASSY	AZW7029

CASS. PCB ASSY

	SEMICONDUCTORS	
	IC401	TA7784P
	IC402	BA3312N
	Q407, Q410, Q412, Q413, Q421, Q423	2SA733
	Q401−Q404	2SC1815
	Q408, Q424	2SC2001
	Q405, Q406, Q409, Q411, Q426	2SC945
	Q425	DTA124ES
	Q419, Q420	DTC144ES
	D401, D403, D416, D417, D422, D423, D424, D426	1SS176T
	D402, D405−D410, D420, D421	HSS104−02
	D425, D426	MTZ4.7B
	COIL	
	L401	AZT7007
	L402	LTA472J

CAPACITORS

Mark	No.	Description	Parts No.
	C468		AZC7004
	C403, C404, C433, C434		AZC7018
	C435, C436		AZC7019
	C447, C448		CEANP010M50
	C405, C406, C421–C424, C431, C432		CEAS010M50
	C444, C445		CEAS100M50
	C411, C412, C427, C428, C450		CEAS101M10
	C461		CEAS101M16
	C443		CEAS102M10
	C451, C452, C462		CEAS220M16
	C453, C454		CEAS221M16
	C439, C446, C457		CEAS470M10
	C415, C416, C419, C420		CEAS4R7M50
	C413, C414		CKDYX103M25
	C407–C410, C425, C426		CKPUYB221K50
	C401, C402		CKPUYB331K50
	C459, C460		CKPUYB471K50
	C429, C430		CKPUYB681K50
	C441, C449, C464		CKPUYF223Z50
	C438		CQMA103J50
	C440		CQMA123J50
	C437, C458		CQMA223J50

RESISTORS

Mark	No.	Description	Parts No.
	SFR401		VRTP6VS502
	R425, R426		RD1/4PM101J
	R421, R422, R444, R494		RD1/4PM102J
	R433–R437, R448, R450, R442, R451, R455, R456, R467, R468		RD1/4PM103J
	R417, R418		RD1/4PM104J
	R443		RD1/4PM105J
	R411, R412, R423, R424		RD1/4PM123J
	R446		RD1/4PM153J
	R441		RD1/4PM220J
	R495, R415, R416		RD1/4PM222J
	R427, R428, R447, R461, R463, R454, R481–R483		RD1/4PM223J
	R459		RD1/4PM272J
	R452		RD1/4PM273J
	R413, R414		RD1/4PM274J
	R407, R408		RD1/4PM334J
	R439, R453		RD1/4PM471J
	R499		RD1/4PM472J
	R440, R445, R449		RD1/4PM563J
	R419, R420		RD1/4PM683J
	R490, R493		RD1/4PM821J
	R409, R410		RD1/4PM822J
	Other Resistors		RD1/8PM□□□J

OTHERS

Mark	No.	Description	Parts No.
	CN7		AZK1073
	CN1		AZK1074
	CN2		AZK1076
	CN8		AZK7008
	CN5		AZK7009
	CN3		AZK7010
	CN4		AZK7011
	CN10		AZK7012
	SK001		AZK7013

R/P SW PCB ASSY

R/P SW PCB Assy has no service part.

HI-SPEED PCB ASSY

HI-SPEED PCB Assy has no service part.

CONNECTOR PCB ASSY

CONNECTOR PCB Assy has no service part.

CD DECODER PCB ASSY

SEMICONDUCTORS

Mark	No.	Description	Parts No.
	IC001		CXA1081M
	IC002		CXA1082BQ
	IC003		CXD1167Q
	IC005		LC7883KM
	IC006, IC007		NJM4558LD
	IC009		PST520D
	IC004		AZQ7001
	Q016, Q017, Q020, Q024		2SA733
	Q001, Q003, Q005, Q007, Q009, Q013, Q015, Q021, Q022		2SA952
	Q002, Q004, Q006, Q008, Q023		2SC2001
	Q012, Q014		2SC2060R
	Q010, Q025, Q026, Q030		2SC945
⚠	D008–D011		1N4002L
	D001		1SS133X
	D016		MTZ10B
	D015		MTZ11B
	D014		MTZ5.1B
	D006, D007		MTZ5.6B

COILS

Mark	No.	Description	Parts No.
	L001, L003		LAU100J
	L002		LAU100J

CAPACITORS

Mark	No.	Description	Parts No.
	C002, C014, C017, C029, C034		AZC7002
	C033A		AZC7004
	C036, C037		CCPUSL220J50
	C016, C086L, C086R		CEAS2R2M50
	C004, C010, C028, C038, C039, C019, C051, C053, C035, C059		CEAS101M10

Mark	No. Description	Parts No.
	C042, C043, C057, C060	CEAS101M16
	C021, C054	CEAS220M16
	C046, C047	CEAS222M16
	C033	CEAS470M10
	C044, C045	CEAS471M10
	C008, C032	CEASR47M50
	C026, C058, C081L, C081R, C082L, C082R, C085L, C085R	CKPUYB102K50
	C013	CKPUYB471K50
	C024, C065, C025, C048, C049, C052	CKPUYF223Z25
	C001, C006, C007, C066	CKPUYY103M16
	C023, C030	CQMA103J50
	C003, C015, C018, C031	CQMA333J50
	C005, C012, C055, C083L, C083R	CQMA472J50
	C011	CQMA473J50

RESISTORS

Mark	No. Description	Parts No.
	VR2	VRTP6VS103
	VR5	VRTP6VS202
	VR1	VRTP6VS203
⚠	R091	AZC7012
	R102	RD1/4PM102J
	Other Resistors	RD1/8PM□□□J

OTHERS

Mark	No. Description	Parts No.
	LCD001	AZA7022
	XTL001 (16.9344MHz)	AZC7011
	CF001	AZC7013
	CN008	AZK1073
	CN014	AZK1075
	CN001	AZK7012
	CN002	AZK7022
	CN003	AZK7023
	CN007	AZK7024
	CN004−CN006	
	CN015	AZK7026
	SCREW	BBZ30P080FMC

CD CONTROL PCB ASSY

SWITCHES

Mark	No. Description	Parts No.
	S001−S007, S009−S016	AZS7004

CD LAMP PCB ASSY

OTHERS

Mark	No. Description	Parts No.
	LP001	AZE7005
	CN006	AZK7004

CD SENSOR PCB ASSY

CD SENSOR PCB Assy has no service part.

CD SUB PCB ASSY

OTHERS

Mark	No. Description	Parts No.
	CN010	AZK1073
	CN012	AZK1074
	CN009	AZK1075

CD SUB I PCB ASSY

SEMICONDUCTORS

Mark	No. Description	Parts No.
	Q011	2SC945

CAPACITORS

Mark	No. Description	Parts No.
	C027	CEASR47M50
	C062	CKPUYY103K16

RESISTORS

Mark	No. Description	Parts No.
	R057	RD1/8PM103J
	R056, R058	RD1/8PM223J

OTHERS

Mark	No. Description	Parts No.
	CN021A	AZK7003

7. ADJUSTMENTS

7.1 TUNER SECTION

FM IF Alignment Procedure

Adjust: T101, T102

1. Connect .022uF capacitor to IF sweep generator output and JK101 FM antenna IN. (See Fig. 1)
2. Output waveform from the oscilloscope connected to TP3 & TP4. (See Fig. 1)
3. Adjust T101, T102 for maximum output. (See Fig. 2)

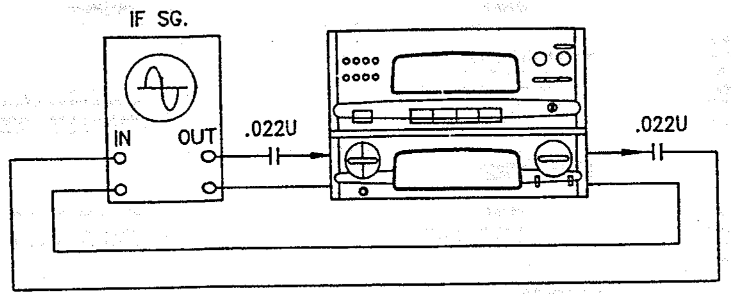


Fig. 1

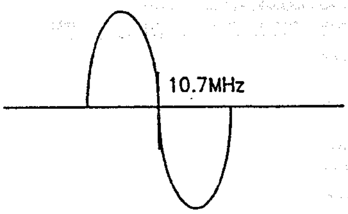


Fig. 2

AM IF Alignment Procedure

Adjust: T104

1. Connect .022uF capacitor to IF sweep generator output and JK101 AM antenna IN. (See Fig. 1)
2. Output waveform from the oscilloscope connected to TP3 & TP4. (See Fig. 1)
3. Adjust T104 for maximum output. (See Fig. 3)

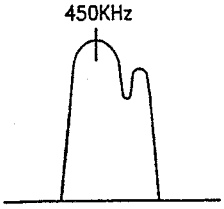


Fig. 3

FM Range & Sensitivity Adjustment

Range:

1. FM RF signal generator input through JK101 FM antenna IN. (See Fig. 4)
2. Digital DC voltage meter connected to TP1 & TP2.
3. Tuning to 87.9MHz , adjust L103 for a counter reading of 1.20V±0.05V.
4. Tuning to 107.9MHz, check the reading should be 9V±0.5V.
5. Repeat adjustments as necessary to minimize tracking error.

Sensitivity

1. Tuning to 90.1MHz, turn SFR101 clockwise to 2/3 of the maximum position and adjust L102 for maximum output.
2. Tuning to 106.1MHz, turn SFR101 clockwise to 2/3 of the maximum position and adjust TC101 for maximum output.
3. Repeat adjustment as necessary to minimize tracking error.

AM Range Adjustment

- Position the channel step switch on the rear panel to the 10kHz position.

1. AM RF signal generator O/P from loop antenna, and input through JK101 AM antenna IN. (See Fig. 4)
2. Digital DC voltage meter connected to TP1 & TP2.
3. Tuning to 530kHz, adjust T103 for a counter reading of 1.2V±0.05V.
4. Tuning to 1720kHz, adjust TC103 for a counter reading of 7.6V±0.05V.
5. Repeat adjustments as necessary to minimize tracking error.

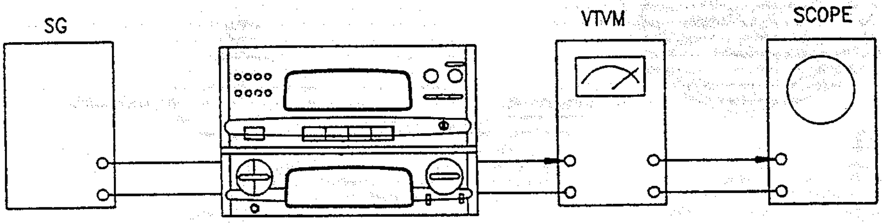

SG
VTVM
SCOPE

Fig. 4

AM Sensitivity Adjustment

- Position the channel step switch on the rear panel to the 10kHz position.

1. Tuning to 600kHz, turn SFR101 clockwise to 2/3 of the maximum position and adjust T104 for maximum output.
2. Tuning to 1400kHz, turn SFR101 clockwise to 2/3 of the maximum position and adjust TC102 for maximum output.
3. Repeat adjustments as necessary to minimize tracking error.

FM 76kHz Alignment

1. Connect FM signal generator to FM EXT. antenna terminal.
2. Tuning to 98MHz.
3. Connect a frequency counter as shown in Fig. 5.
4. Set FM mode key to FM auto, and FM MOD. OFF.
5. Adjust SFR101 for a frequency counter of reading of 76kHz±200Hz.

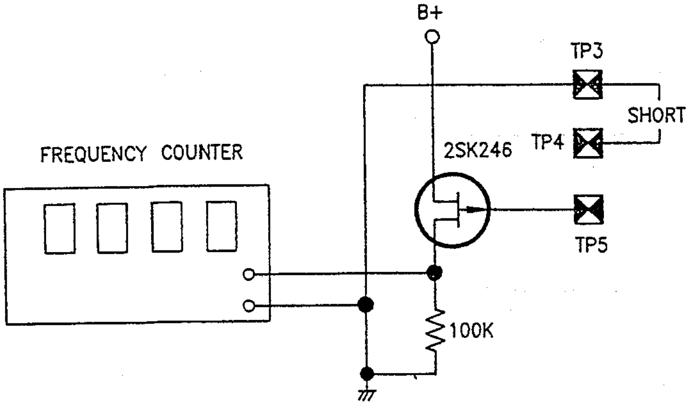

B+
TP3
SHORT
TP4
2SK246
FREQUENCY COUNTER
TP5
100K

Fig. 5

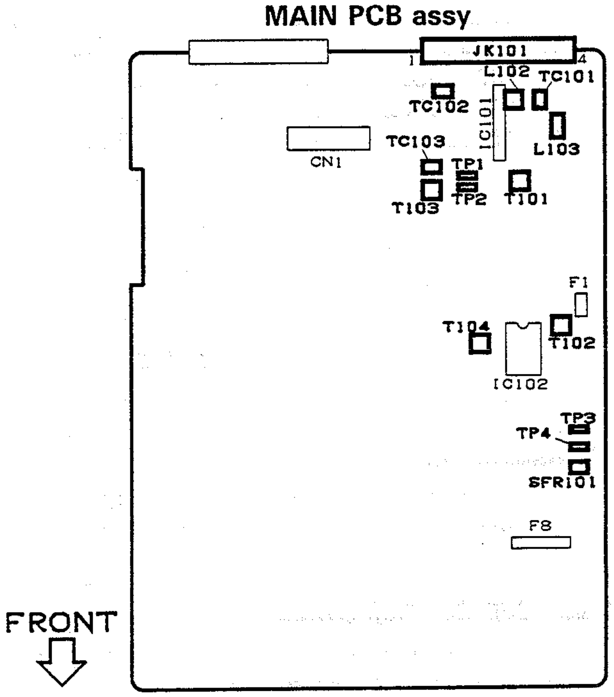

MAIN PCB assy
JK101
1
4
L102
TC101
TC102
IC101
TC103
L103
CN1
TP1
T103
TP2
T101
F1
T104
T102
IC102
TP3
TP4
SFR101
F8
FRONT

Fig. 6 Adjustment Points

7.2 CD SECTION

The following steps should performed be performed before the adjustment procedure.

a. Remove the turntable by sliding the guide plate outward. (See Fig. 1)
b. Disassemble the base cover by removing the 2 screws. (See Fig. 1)

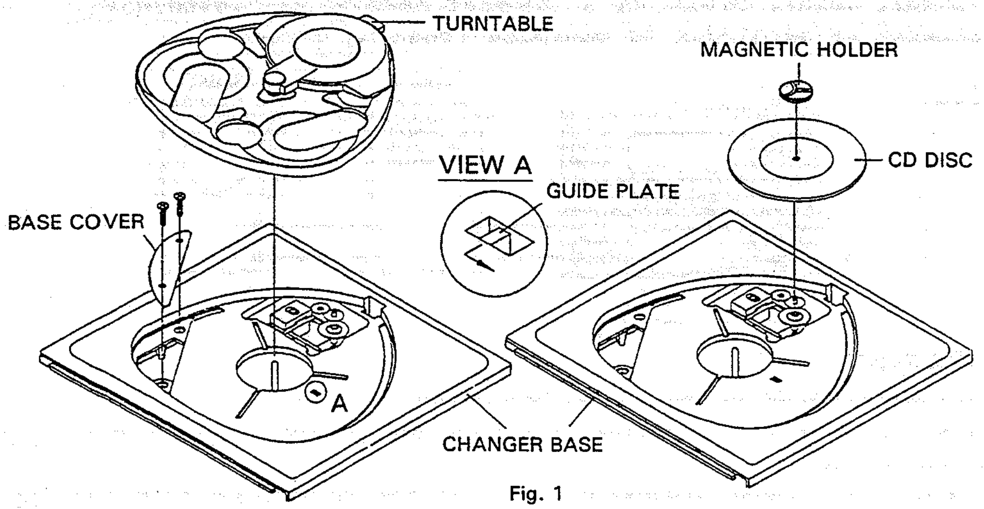

TURNTABLE
MAGNETIC HOLDER
CD DISC
VIEW A
GUIDE PLATE
BASE COVER
A
CHANGER BASE

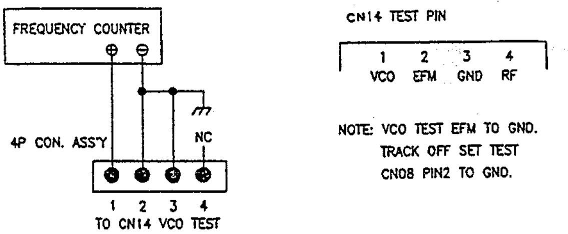
Fig. 1

CAUTION:

The laser beam may be active when the turntable is removed.
Use of controls for adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.
The compact disc player should not be adjusted or repaired by anyone except properly qualified service personnel.

VCO Adjustment

a. CN07 connected to power supply, CD test disc (YEDS-7) placed on the spindle and fastened with the magnetic holder.
b. Power ON & CD ON, push S06 switch in stop mode.
c. VCO test pin to CN14, and adjust VR05 for a counter reading of 4.45MHz +/- 10KHz. (See Fig. 2)
d. Disconnect the test pin after above the procedure.


FREQUENCY COUNTER
⊕ ⊖
4P CON. ASS'Y
NC
1 2 3 4
TO CN14 VCO TEST
CN14 TEST PIN
1 2 3 4
VCO EFM GND RF

NOTE: VCO TEST EFM TO GND.
TRACK OFF SET TEST
CN08 PIN2 TO GND.

Fig. 2

RF Adjustment

a. RF test pin connected to CN14, CD in play mode. (See Fig. 3)
b. Adjust VR02, for the maximum waveform. (See Fig. 4)

Track OFF Set Adjustment

a. Track off set test pin connected to CN08. (See Fig. 3)
b. Adjust VR01 as shown in Fig. 5.

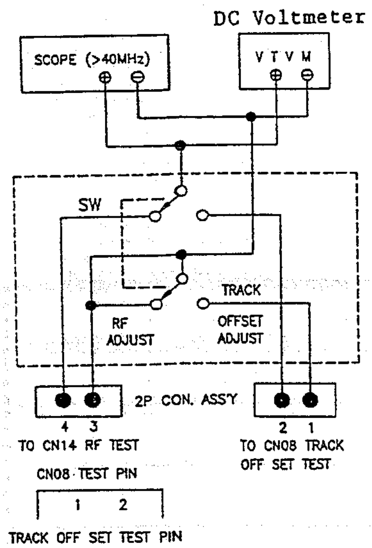

DC Voltmeter
SCOPE (>40MHz)
V T V M
SW
TRACK
RF ADJUST
OFFSET ADJUST
2P CON. ASSY
4 3
TO CN14 RF TEST
2 1
TO CN08 TRACK OFF SET TEST
CN08 TEST PIN
1 2
TRACK OFF SET TEST PIN

Fig. 3

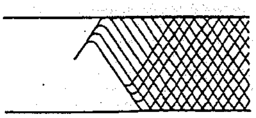


Fig. 4

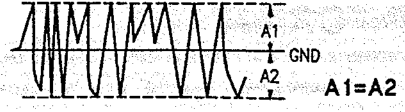

A1
GND
A2
A1=A2

Fig. 5

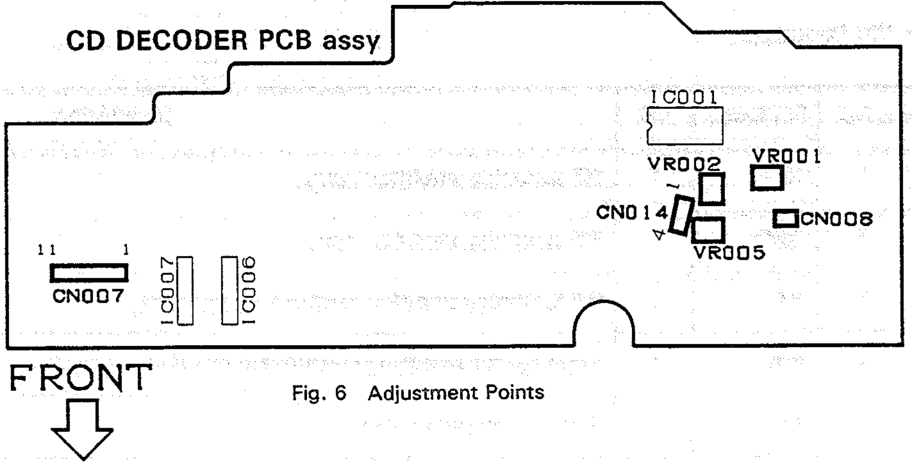

CD DECODER PCB assy
IC001
VR002
VR001
CN014
CN008
VR005
11
1
CN007
IC007
IC006
FRONT

Fig. 6 Adjustment Points

7.3 CASSETTE DECK SECTION

Cassette Deck Head Azimuth Adjustment

1. Insert test tape STD-331B into deck 2, in play mode.
2. VTVM connected to SK001 pin 3 & pin 4.
3. Adjust the left side screw for maximum output. (See Fig. 1)
4. Insert test tape STD-331B into deck 1, in play mode.
5. Adjust the left side screw for maximum output. (See Fig. 2)

Cassette Speed Adjustment

1. Insert test tape STD-301 into deck 1 (play deck), in normal dubbing mode.
2. Connect a frequency counter to pins 3 and 4 of SK001.
3. Adjust SFR401 for a frequency counter reading of 2970Hz - 3040Hz.
4. Insert test tape STD-301 into deck 2 (R/P deck), in normal dubbing mode.
5. Check for a frequency counter reading of 2970Hz - 3040Hz.

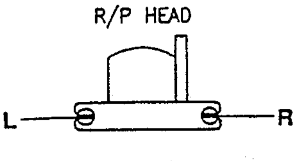


Fig. 1

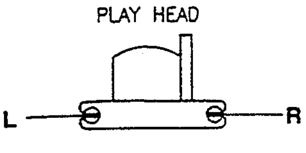

PLAY HEAD
L
R

Fig. 2

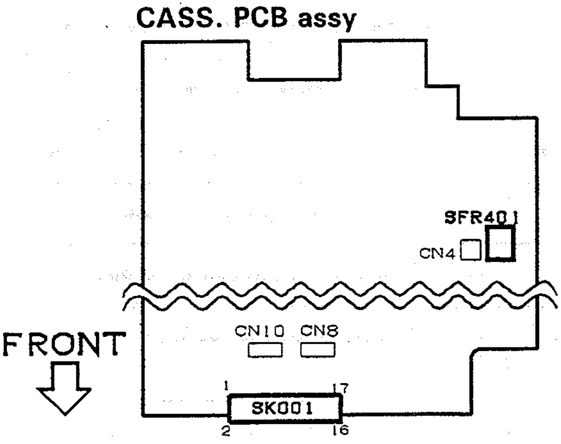

CASS. PCB assy
SFR401
CN4
CN10
CN8
FRONT
1
17
SK001
2
16

Fig. 3 Adjustment Points

8. IC INFORMATION

- *The information shown in the list is basic information and may not correspond exactly to that shown in the schematic diagrams.*

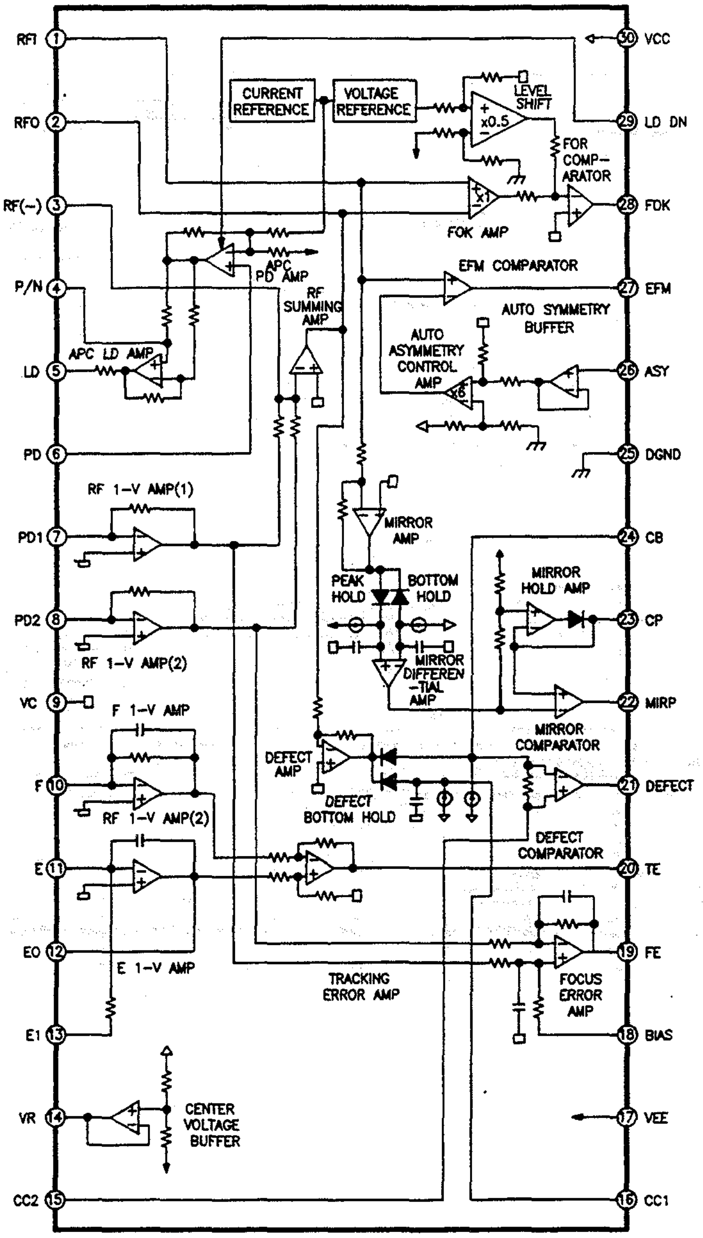
■ CXA1081M (IC001: CD DECODER PCB ASSY)

- Pin Function

Pin No.	Pin Name	I/O	Description
1	RFI	I	RF summing amplifier input.
2	RFO	O	RF summing amplifier input.
3	RF −	I	RF Summing amplifier feedback signal input.
4	P/N	I	Terminal for switching P-sub/N-sub of LD (laser diode).
5	LD	O	APC LD amplifier output.
6	PD	I	APC PD amplifier input.
7	PD1	I	RF I-V amplifier (1) inverting input. This terminal is connected to the pin diode (A+C).
8	PD2	I	RF I-V amplifier (2) inverting input. This terminal is connected to the pin diode (B+D).
9	VC	−	Ground.
10	F	I	F I-V amplifier inverting input. This terminal is connected to the pin diode (F).
11	E	I	E I-V amplifier inverting input. This terminal is connected to the pin diode (E).
12	EO	O	E I-V amplifier output.
13	EI	I	E I-V amplifier feedback input.
14	VR	O	(VCC − VEE)/2 voltage output.
15	CC2	I	Defect amplifier bottom hold input. This terminal is connected Pin 16 with a coupling capacitor.
16	CC1	O	Defect amplifier bottom hold output.
17	VEE	−	Negative supply voltage: −5V.
18	FEBIAS	I	Bias terminal for the focus error amplifier non-inverting.
19	FE	O	Focus error amplifier output.
20	TE	O	Tracking error amplifier output.
21	DEFECT	O	Defect comparator output.
22	MIRR	O	Mirror comparator output.
23	CP	I	Mirror comparator non-inverting input. This terminal is connected a mirror hold capacitor.

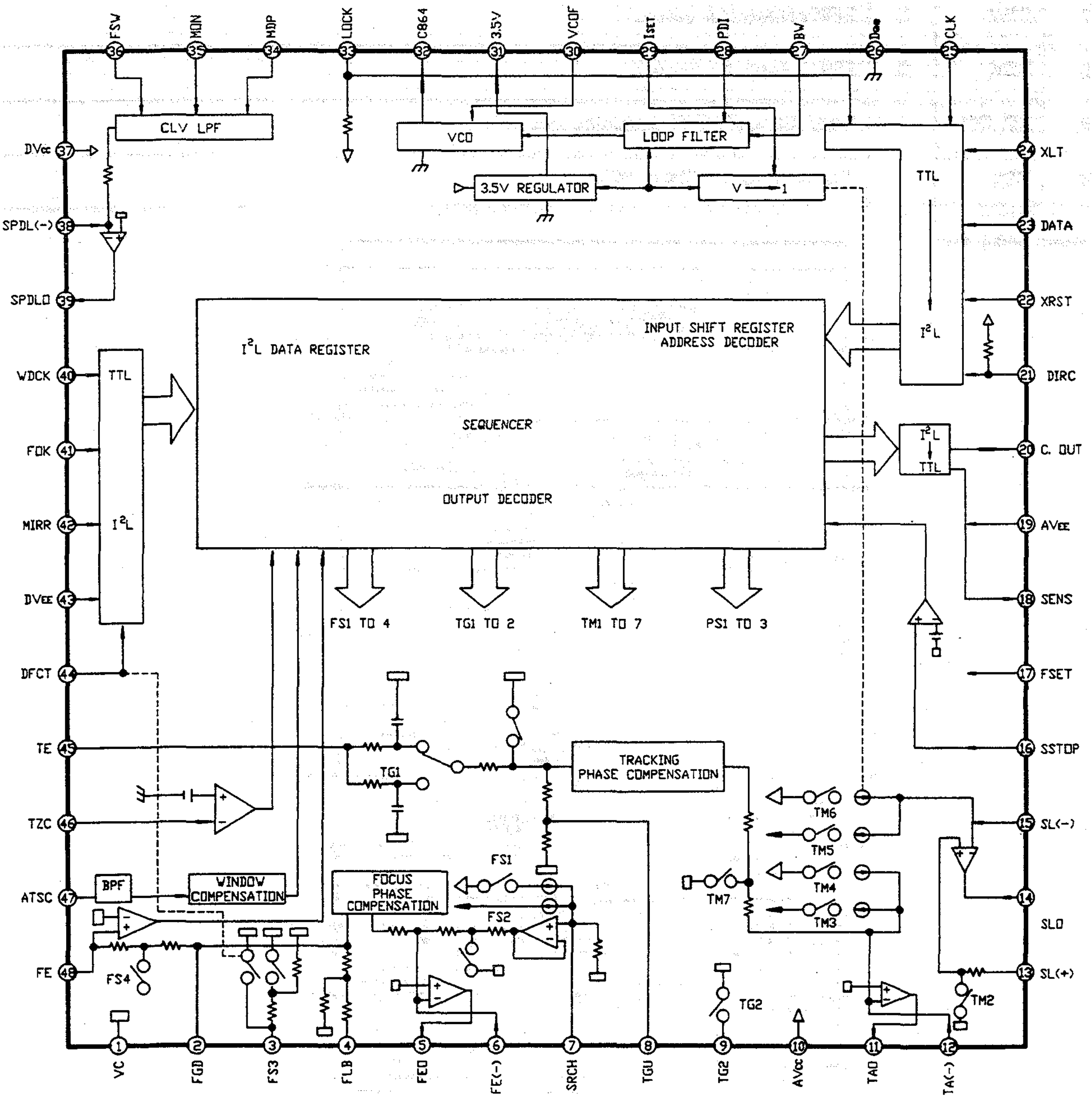
Pin No.	Pin Name	I/O	Description
24	CB	I	This terminal is connected a defect bottom hold capacitor.
25	DGND	–	Ground.
26	ASY	I	Auto asymmetry buffer control signal input.
27	EFM	O	EFM comparator output.
28	FOK	O	FOK comparator output.
29	LD ON	I	Laser diode ON/OFF switching input.
30	Vcc	–	Positive supply voltage: +5V.

- Block Diagram


RFI ①
RFO ②
RF(–) ③
P/N ④
LD ⑤
PD ⑥
PD1 ⑦
PD2 ⑧
VC ⑨
F ⑩
E ⑪
EO ⑫
E1 ⑬
VR ⑭
CC2 ⑮
⑯ CC1
⑰ VEE
⑱ BIAS
⑲ FE
⑳ TE
㉑ DEFECT
㉒ MIRP
㉓ CP
㉔ CB
㉕ DGND
㉖ ASY
㉗ EFM
㉘ FOK
㉙ LD ON
㉚ VCC
CURRENT REFERENCE
VOLTAGE REFERENCE
LEVEL SHIFT
x0.5
FOR COMP-ARATOR
x1
FOK AMP
APC PD AMP
EFM COMPARATOR
RF SUMMING AMP
AUTO SYMMETRY BUFFER
AUTO ASYMMETRY CONTROL AMP
x6
APC LD AMP
RF 1-V AMP(1)
MIRROR AMP
PEAK HOLD
BOTTOM HOLD
MIRROR HOLD AMP
RF 1-V AMP(2)
MIRROR DIFFERENTIAL AMP
MIRROR COMPARATOR
F 1-V AMP
DEFECT AMP
DEFECT BOTTOM HOLD
RF 1-V AMP(2)
DEFECT COMPARATOR
E 1-V AMP
TRACKING ERROR AMP
FOCUS ERROR AMP
CENTER VOLTAGE BUFFER

■ CXA1082BQ (IC002: CD DECODER PCB ASSY)

- Block Diagram


FSW
MON
MDP
LOCK
C864
3.5V
VCOF
ISET
PDI
BV
DEE
CLK
36
35
34
33
32
31
30
29
28
27
26
25
CLV LPF
VCO
LOOP FILTER
3.5V REGULATOR
V → I
TTL
I²L
DVcc 37
SPDL(-) 38
SPDLO 39
WDCK 40
FOK 41
MIRR 42
DVEE 43
DFCT 44
TE 45
TZC 46
ATSC 47
FE 48
24 XLT
23 DATA
22 XRST
21 DIRC
20 C. OUT
19 AVEE
18 SENS
17 FSET
16 SSTOP
15 SL(-)
14 SLO
13 SL(+)
I²L DATA REGISTER
INPUT SHIFT REGISTER
ADDRESS DECODER
SEQUENCER
OUTPUT DECODER
FS1 TO 4
TG1 TO 2
TM1 TO 7
PS1 TO 3
TG1
TRACKING
PHASE COMPENSATION
TM6
TM5
TM4
TM3
TM7
TM2
FS1
FS2
FS4
BPF
WINDOW
COMPENSATION
FOCUS
PHASE
COMPENSATION
TG2
1
2
3
4
5
6
7
8
9
10
11
12
VC
FGD
FS3
FLB
FEO
FE(-)
SRCH
TGU
TG2
AVcc
TAO
TA(-)

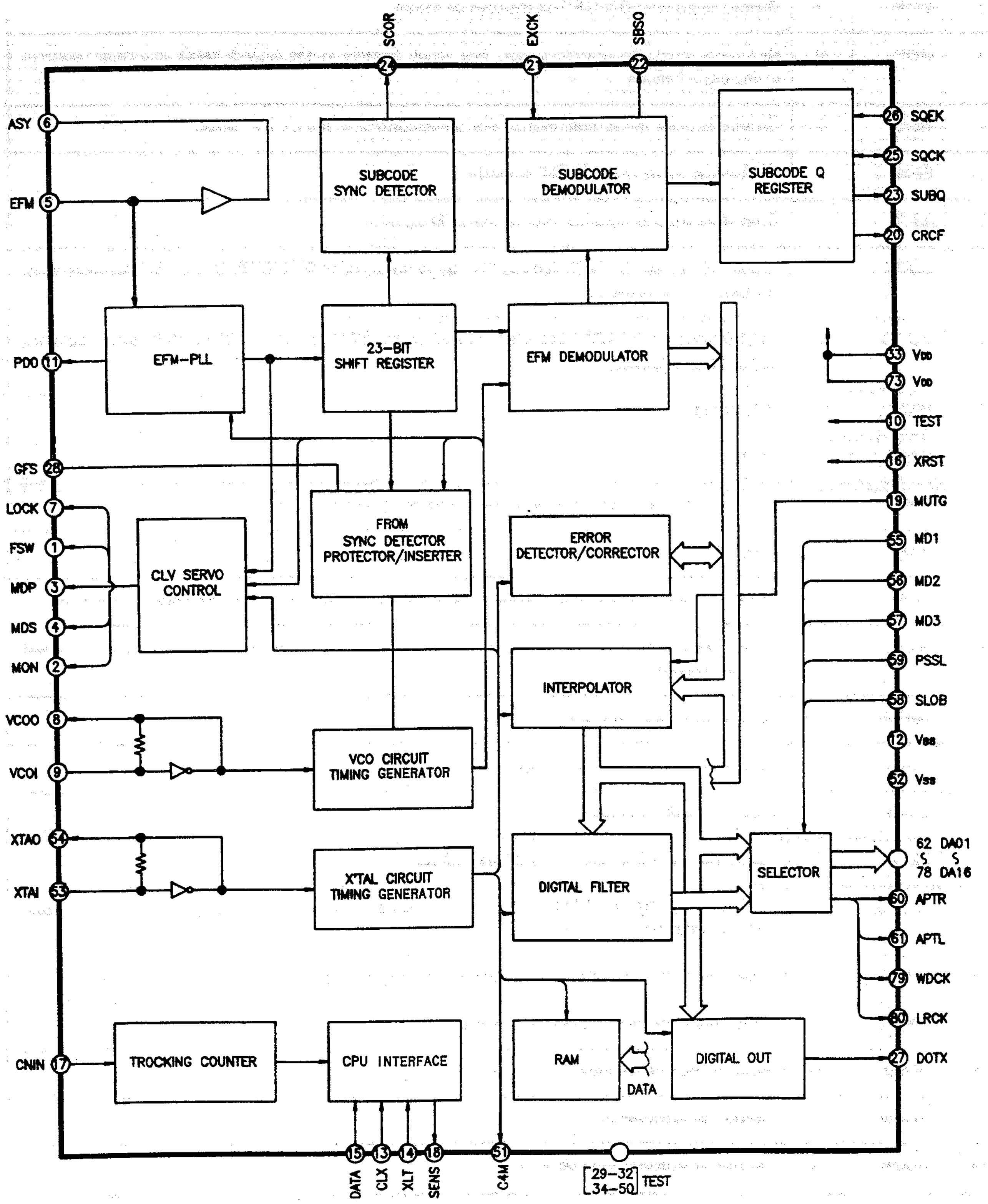
- Pin Function

Pin No.	Pin Name	I/O	Description
2	FGD	I	A capacitor is connected between this Pin and F3 (Pin 3) for decreasing high-frequency gain of focus servo.
3	FS3	O	Terminal for switching high-frequency gain of focus servo.
4	FLB	–	This Pin is used to connect a time constant for increasing low-frequency characteristic of focus servo.
5	FEO	O	Terminal for outputting a signal for driving focus coil.
11	TAO	O	Terminal for outputting a signal for driving tracking coil.
14	SLD	O	Terminal for outputting a drive signal for sled motor.
39	SPDLO	O	Terminal for outputting a drive signal for spindle (disc) motor.
6	FE ⊖	I	Focus amplifier inverting input.
7	SRCH	I	This terminal is used to determine time constant for genarating focus search waveform.
8	TGU TG2		Terminals are used to determine a time constant for switching tracking high-frequency gain.
12	TA ⊖	I	Tracking amplifier inverting input.
13	SL ⊕	I	Sled (Feed) amplifier non-inverting input.
15	SL ⊖	I	Sled amplifier inverting input.
16	SSTOP	I	Terminal for inputting a signal from limit switch ON/OFF for detecting innermost track of disc.
17	FSET	I	Terminal for setting focus and tracking phase-compensation peaks and for CLV LPF.
18	SENS	O	Terminal for outputting internal condition data.
20	C. OUT	O	Terminal for outputting a signal for counting track number of disc.
21	DIRC		This terminal is used for one-track jump operation.

Pin No.	Pin Name	I/O	Description
22	XRST		Terminal for inputting a reset signal. Reset operation in "L" level.
23	DATA	I	Serial data input from the CXP1001AQ mechanism control.
24	XLT	I	Terminal for inputting a latch signal for serial data from the CXP1001AQ mechanism control.
25	CLK	I	Serial data clock input from the CXP1001AQ mechanism control.
26	DGND	–	Ground.
28	PDI	I	PDO signal input from the phase comparator of the CXD1167Q digital signal processing.
29	ISET	O	Terminal for outputting a current to determine focus search, track jump and sledding kick height.
30	VCOF	I	VCO free-frequency is practically proportional to resistance between this Pin and Pin 31.
32	C864	O	Internal 8.64 MHz VCO output.
34	MDP	I	A spindle motor driving signal input from the CXD1125 digital signal processing (MDP terminal).
35	MON	I	A spindle motor ON/OFF signal input from the CXD1125 digital signal processing (MON terminal).
36	FSW	–	This terminal is used to determine a time constant for LPF of CLV servo error signal.
38	SPDL –	I	Spindle drive amplifier inverting input.
40	WDCK	I	Auto sequence clock input. Typical frequency = 88.2 kHz.
41	FOK	I	FOK signal input from the CXA1081S.
42	MIRR	I	Mirror comparator signal input from the CXA1081S.
44	DFCT	I	Defect comparator signal input from the CXA1081S.
45	TE	I	Tracking error amplifier signal input from CXA1081S.
46	TZC	I	Tracking zero cross comparator signal input.
47	ATSC	I	Window compartor input for ATSC detection.
48	FE	I	Focus error amplifier signal input.

■ CXD1167Q (IC003: CD DECODER PCB ASSY)

- Block Diagram


SCOR
EXCK
SBSO
ASY ⑥
EFM ⑤
PDO ⑪
GFS ㉘
LOCK ⑦
FSW ①
MDP ③
MDS ④
MON ②
VCOO ⑧
VCOI ⑨
XTAO (54)
XTAI (53)
CNIN ⑰
SUBCODE SYNC DETECTOR
SUBCODE DEMODULATOR
SUBCODE Q REGISTER
EFM-PLL
23-BIT SHIFT REGISTER
EFM DEMODULATOR
FROM SYNC DETECTOR PROTECTOR/INSERTER
ERROR DETECTOR/CORRECTOR
CLV SERVO CONTROL
INTERPOLATOR
VCO CIRCUIT TIMING GENERATOR
X'TAL CIRCUIT TIMING GENERATOR
DIGITAL FILTER
SELECTOR
TROCKING COUNTER
CPU INTERFACE
RAM
DATA
DIGITAL OUT
㉖ SQEK
㉕ SQCK
㉓ SUBQ
⑳ CRCF
㉝ VDD
(73) VDD
⑩ TEST
⑯ XRST
⑲ MUTG
(55) MD1
(56) MD2
(57) MD3
(59) PSSL
(58) SLOB
⑫ Vss
(52) Vss
62 DA01
78 DA16
(60) APTR
(61) APTL
(79) WDCK
(80) LRCK
㉗ DOTX
⑮ DATA
⑬ CLX
⑭ XLT
⑱ SENS
(51) C4M
29-32
34-50
TEST

- Pin Function

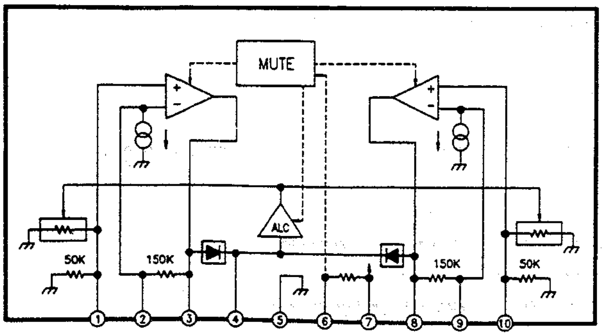
Pin No.	Pin Name	I/O	Function
1	FSW	O	Output to change the time constant of the output filter for the spindle motor.
2	MON	O	Output to control ON/OFF of the spindle motor.
3	MDP	O	Output to drive the spindle motor. For rough control in the CLV-S mode and phase control in the CLV-P mode.
4	MDS	O	Output to drive the spindle motor. For speed control in the CLV-P mode.
5	EFM	I	EFM signal input from the RF amplifier.
6	ASY	O	Output to control the slice level of the EFM signal.
7	LOCK	O	Issues "H" when the GFS signal is "H" by sampling with WFCK/16. If it is "L" consecutively 8 times, "L" is output.
8	VCOO	O	VCO output f = 8.6436 MHz when locked to the EFM signal. (17.2872 MHz when replayed at the double speed.)
9	VCOI	I	VCO input.
10	TEST	I	(0V).
11	PDO	O	Output of phase comparison between the EFM signal and VCO/2.
12	Vss	–	GND (0V).
13	CLK	I	Input of clock from CPU to transfer serial data. Data is latched at the rise edge of the clock.
14	XLT	I	Latch input from CPU. The data (serial data from CPU) of the 8 bit shift register is latched to each register.
15	DATA	I	Serial data input from CPU.
16	XRST	I	System reset input "L" activates resetting.
17	CNIN	I	Input of tracking pulse.
18	SENS	O	Issues internal status according to the address.
19	MUTG	I	Muting input. When ATTM of the internal register A is "L", MUTG is "L", i.e. normal status. "H" activates no-sound status.
20	CRCF	O	Issues the output of CRC check result for the subcode Q.
21	EXCK	I	Clock input for serial output of subcode.
22	SBSO	O	Serial output of subcode.
23	SUBQ	O	Output of subcode Q.
24	SCOR	O	Output of subcode sync S0 + S1.

Pin No.	Pin Name	I/O	Function
25	SQCK	I/O	Clock to read subcode Q.
26	SQEX	I	SQCK selection input (see the CPU interface for more detail.)
27	DOTX	O	Digital output (WFCK is output when DO is OFF.)
28	GFS	O	Output to indicate locked status of frame sync.
29-32	TEST	I	Fix to "H" or "L". Don't make it open.
33	VDD	–	Power supply (+5V).
34-40	TEST	I	Fix to "H" or "L". Don't make it open.
41-50	TEST	I	Fix to "H" or "L". Don't make it open.
51	C4M	O	Frequency division output of the crystal oscillator. f = 4.2336 MHz (8.4672 MHz when replayed at the double speed.)
52	Vss	–	GND (0V).
53	XTAI	I	Input to the crystal oscillator circuit f = 8.4672 MHz or 16.9344 MHz by selecting mode. (16.9344 MHz when replaying at the double speed.)
54	XTAO	O	Output to the crystal oscillator circuit. f = 8.4672 MHz or 16.9344 MHz by selecting mode. (16.9344 MHz when replaying at the double speed.)
55	MD1	I	Mode select input 1.
56	MD2	I	Mode select input 2.
57	MD3	I	Mode select input 3.
58	SLOB	I	Input to change the code of audio data output. When it is "L" or "H", 2's compliment output or offset binary output is issued, respectively.
59	PSSL	I	Input to change the mode of audio data output. When it is "L" or "H", serial or parallel output is issued, respectively.
60	APTR	O	Control output to correct aperture. "H" for R-ch.
61	APTL	O	Control output to correct aperture. "H" for L-ch.
62	DA01	O	When PSSL = "H" DA01 (LSB of parallel sound data) is output. When PSSL = "L", C1F1 is output.
63	DA02	O	When PSSL = "H" or "L", DA02 or C1F2 is output, respectively.
64	DA03	O	When PSSL = "H" or "L", DA03 or C2F1 is output, respectively.
65	DA04	O	When PSSL = "H" or "L", DA04 or C2F2 is output, respectively.
66	DA05	O	When PSSL = "H" or "L", DA05 or C2FL is output, respectively.

Pin No.	Pin Name	I/O	Function
67	DA06	O	When PSSL = "H" or "L", DA06 or C2PO is output, respectively.
68	DA07	O	When PSSL = "H" or "L", DA07 or RFCK is output, respectively.
69	DA08	O	When PSSL = "H" or "L", DA08 or WFCK is output, respectively.
70	DA09	O	When PSSL = "H" or "L", DA09 or PLCR is output, respectively.
71	DA10	O	When PSSL = "H" or "L", DA10 or UGFS is output, respectively.
72	DA11	O	When PSSL = "H" or "L", DA11 or GTOP is output, respectively.
73	Vcc	–	Power supply (+5V).
74	DA12	O	When PSSL = "H" or "L", DA12 or RAOV is output, respectively.
75	DA13	O	When PSSL = "H" or "L", DA13 or C4LR is output, respectively.
76	DA14	O	When PSSL = "H" or "L", DA14 or BCLK is output, respectively.
77	DA15	O	When PSSL = "H" or "L", DA15 or BCLK is output, respectively.
78	DA16	O	When PSSL = "H", DA16 (MSB of parallel sound data) is output. When PSSL = "L", DATA is output.
79	WDCK	O	Strobe signal output. When DF is ON, the frequency is 176.4 kHz (352.8 kHz when replayed at the double speed). When DF is OFF, it is 88.2 kHz (176.4 kHz when replayed at the double speed).
80	LRCK	O	Strobe signal output. When DF is ON, the frequency is 88.2 kHz (176.4 kHz when replayed at the double speed). When DF is OFF, it is 44.1 kHz (88.2 kHz when replayed at the double speed).

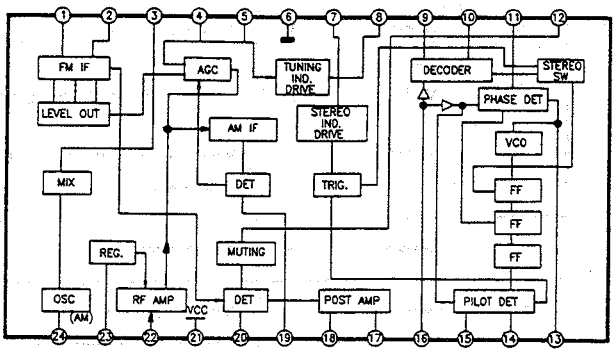
■ BA3312N (IC402: CASS. PCB ASSY)

- Block Diagram


MUTE
ALC
50K
150K
150K
50K
①
②
③
④
⑤
⑥
⑦
⑧
⑨
⑩

■ LA1805 (IC102: MAIN PCB ASSY)

- Block Diagram

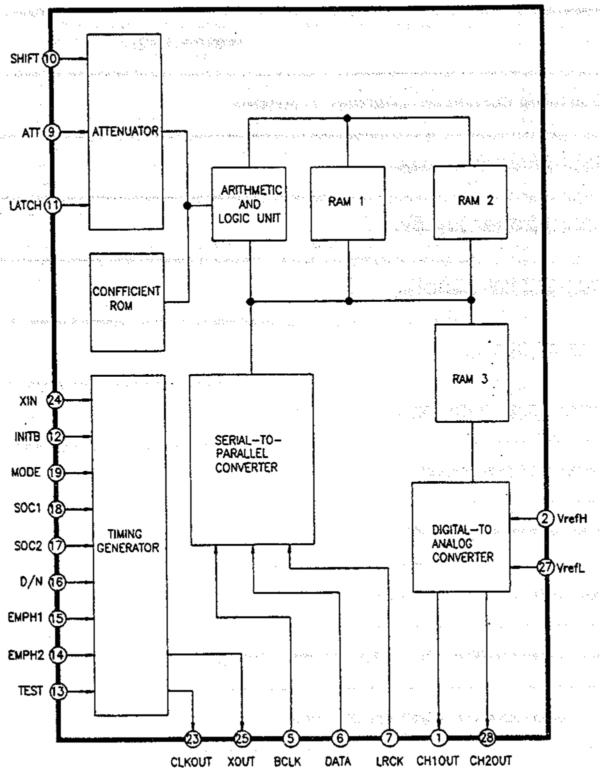

①
②
③
④
⑤
⑥
⑦
⑧
⑨
⑩
⑪
⑫
FM IF
AGC
TUNING IND. DRIVE
DECODER
STEREO SW
PHASE DET
LEVEL OUT
AM IF
STEREO IND. DRIVE
VCO
MIX
DET
TRIG.
FF
FF
FF
REG.
MUTING
OSC (AM)
RF AMP
VCC
DET
POST AMP
PILOT DET
㉔
㉓
㉒
㉑
⑳
⑲
⑱
⑰
⑯
⑮
⑭
⑬

■ LC7883KM (IC005: CD DECODER PCB ASSY)

- ● Pin Function

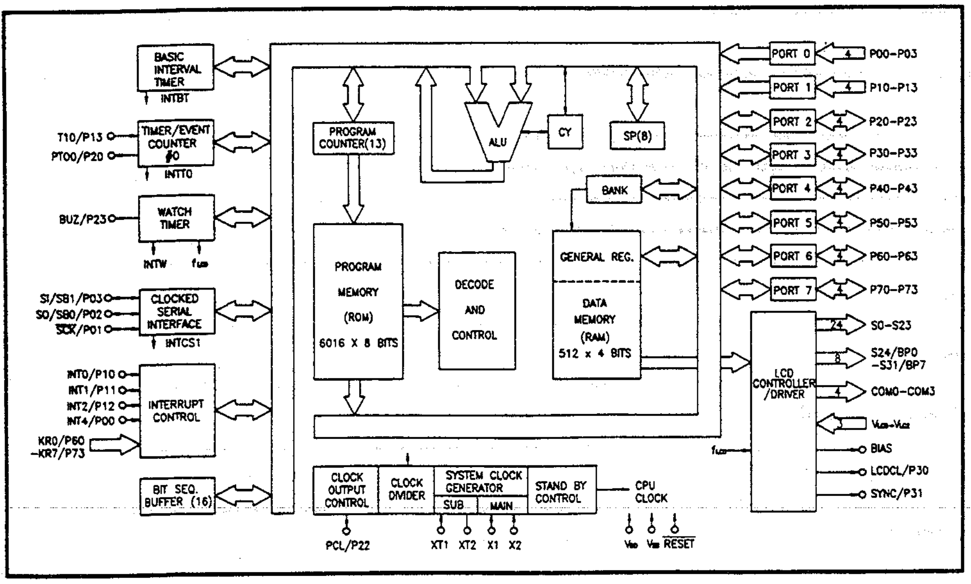
Number	Name	Description
1	CH1OUT	Digital-to-analog converter channel 1 output.
2	VrefH	HIGH-level reference voltage.
3	AVDD	Analog circuit power supply.
4	DVDD	Digital circuit power supply.
5	BCLK	Serial bit-clock input.
6	DATA	Digital-audio serial data input.
7	LRCK	Channel select clock input.
8, 13	TEST	Test inputs. Normally LOW.
9	ATT	Attenuator and control data serial input.
10	SHIFT	Attenuator and control data shift clock input.
11	LATCH	Attenuator and control data latch input.
12	INITB	Initialization input.
14	EMPH2	De-emphasis select inputs.
15	EMPH1	
16	D/N	Double/normal sampling frequency select input.
17	SOC2	Source select inputs with internal pull-down.
18	SOC1	
19	MODE	Operating mode select input with internal pull-down.
20, 21	TEST	Test inputs with internal pull-down. Normally LOW.
22	DGND	Digital ground.
23	CLKOUT	Clock output.
24	XIN	Crystal oscillator input.
25	XOUT	Crystal oscillator output.
26	AGND	Analog ground.
27	VrefL	LOW-level reference voltage.
28	CH2OUT	Digital-to-analog converter channel 2 output.

- Block Diagram


SHIFT 10
ATT 9
LATCH 11
ATTENUATOR
CONFFICIENT ROM
ARITHMETIC AND LOGIC UNIT
RAM 1
RAM 2
RAM 3
XIN 24
INITB 12
MODE 19
SOC1 18
SOC2 17
D/N 16
EMPH1 15
EMPH2 14
TEST 13
TIMING GENERATOR
SERIAL-TO-PARALLEL CONVERTER
DIGITAL-TO ANALOG CONVERTER
2 VrefH
27 VrefL
23 CLKOUT
25 XOUT
5 BCLK
6 DATA
7 LRCK
1 CH1OUT
28 CH2OUT

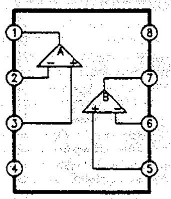
AZQ7001 (IC004: CD DECODER PCB ASSY)

- Block Diagram


BASIC INTERVAL TIMER
INTBT
T10/P13
PT00/P20
TIMER/EVENT COUNTER #0
INTT0
BUZ/P23
WATCH TIMER
INTW
fLCD
SI/SB1/P03
SO/SB0/P02
SCK/P01
CLOCKED SERIAL INTERFACE
INTCS1
INT0/P10
INT1/P11
INT2/P12
INT4/P00
KR0/P60
-KR7/P73
INTERRUPT CONTROL
BIT SEQ. BUFFER (16)
PROGRAM COUNTER(13)
ALU
CY
SP(8)
BANK
PROGRAM MEMORY (ROM) 6016 X 8 BITS
DECODE AND CONTROL
GENERAL REG.
DATA MEMORY (RAM) 512 x 4 BITS
CLOCK OUTPUT CONTROL
CLOCK DIVIDER
SYSTEM CLOCK GENERATOR
SUB
MAIN
STAND BY CONTROL
CPU CLOCK
PCL/P22
XT1
XT2
X1
X2
VDD
VSS
RESET
PORT 0
PORT 1
PORT 2
PORT 3
PORT 4
PORT 5
PORT 6
PORT 7
4
P00-P03
P10-P13
P20-P23
P30-P33
P40-P43
P50-P53
P60-P63
P70-P73
LCD CONTROLLER /DRIVER
24
S0-S23
8
S24/BP0 -S31/BP7
COM0-COM3
VLC0-VLC2
3
BIAS
LCDCL/P30
SYNC/P31
fLCD

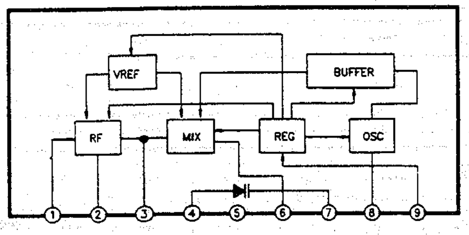
NJM4558S (IC202: MAIN PCB ASSY)
(IC251: FRONT PCB ASSY)
NJM4558L (IC006, IC007: CD DECODER PCB ASSY)

- Block Diagram


①
②
③
④
⑤
⑥
⑦
⑧
A
B

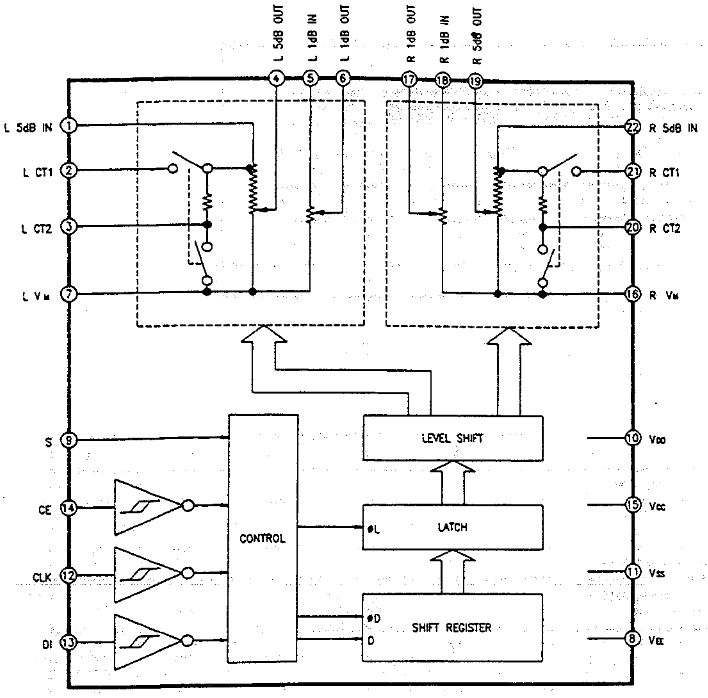
LA1186N (IC101: MAIN PCB ASSY)

- Block Diagram


VREF
BUFFER
RF
MIX
REG
OSC
①
②
③
④
⑤
⑥
⑦
⑧
⑨

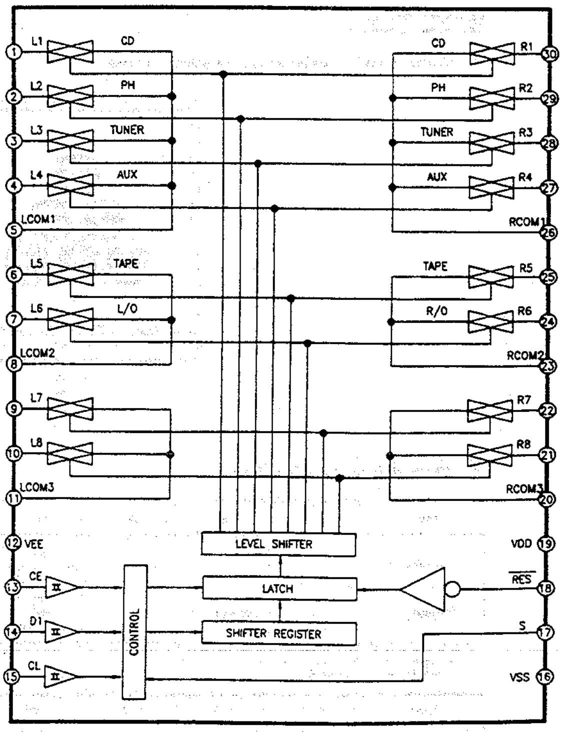
LC7535 (IC203: MAIN PCB ASSY)

- Block Diagram


L 5dB OUT
L 1dB IN
L 1dB OUT
R 1dB OUT
R 1dB IN
R 5dB OUT
④
⑤
⑥
⑰
⑱
⑲
L 5dB IN ①
L CT1 ②
L CT2 ③
L VM ⑦
S ⑨
CE ⑭
CLK ⑫
DI ⑬
㉒ R 5dB IN
㉑ R CT1
⑳ R CT2
⑯ R VM
⑩ VDD
⑮ VCC
⑪ VSS
⑧ VEE
CONTROL
LEVEL SHIFT
φL
LATCH
φD
D
SHIFT REGISTER

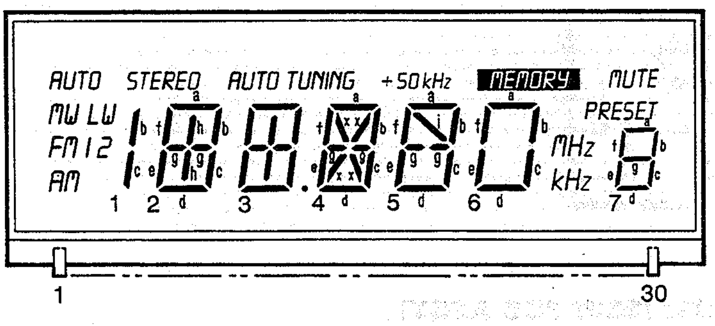
LC7821 (IC201: MAIN PCB ASSY)

- Block Diagram


① L1
② L2
③ L3
④ L4
⑤ LCOM1
⑥ L5
⑦ L6
⑧ LCOM2
⑨ L7
⑩ L8
⑪ LCOM3
⑫ VEE
⑬ CE
⑭ DI
⑮ CL
CD
PH
TUNER
AUX
TAPE
L/O
R/O
R1 ㉚
R2 ㉙
R3 ㉘
R4 ㉗
RCOM1 ㉖
R5 ㉕
R6 ㉔
RCOM2 ㉓
R7 ㉒
R8 ㉑
RCOM3 ⑳
VDD ⑲
RES ⑱
S ⑰
VSS ⑯
CONTROL
LEVEL SHIFTER
LATCH
SHIFTER REGISTER

AZA7021 (For SX−P30) (LCD001 : FRONT PCB ASSY)

- **FL Tube**
- Grid and Segment Assignment

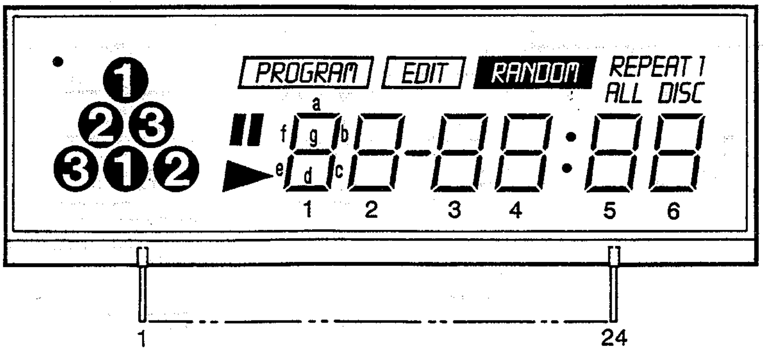

AUTO
STEREO
AUTO TUNING
+50kHz
MEMORY
MUTE
MW LW
FM 1 2
AM
PRESET
MHz
kHz
a
b
c
d
e
f
g
h
i
x
1
2
3
4
5
6
7
1
30

- Anode Connection

No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
COM. 1	COM. 1	–	MW	AUTO	1	2	MEMORY	MUTE	1b, c	kHz	2f	2e	2d	2b	3f
COM. 2	–	COM. 2	FM	AM	LW	STEREO	AUTO TUNING	+50kHz	–	MHz	2a	2g	2c	2h	3b
No.	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
COM. 1	3e	3d	3a	4f	4e	4d	4a	5e, f	5d	5b, c	6a, b, c, e, f	7f	7e	7d	7a
COM. 2	3g	3c	3h	4b	4g	4c	X (4x)	5a	5g	5i	6d	7b	7g	7c	PRESET

AZA7022 (For PDC−P30C) (LCD001 : CD DECORDER PCB ASSY)

- **FL Tube**
- Grid and Segment Assignment

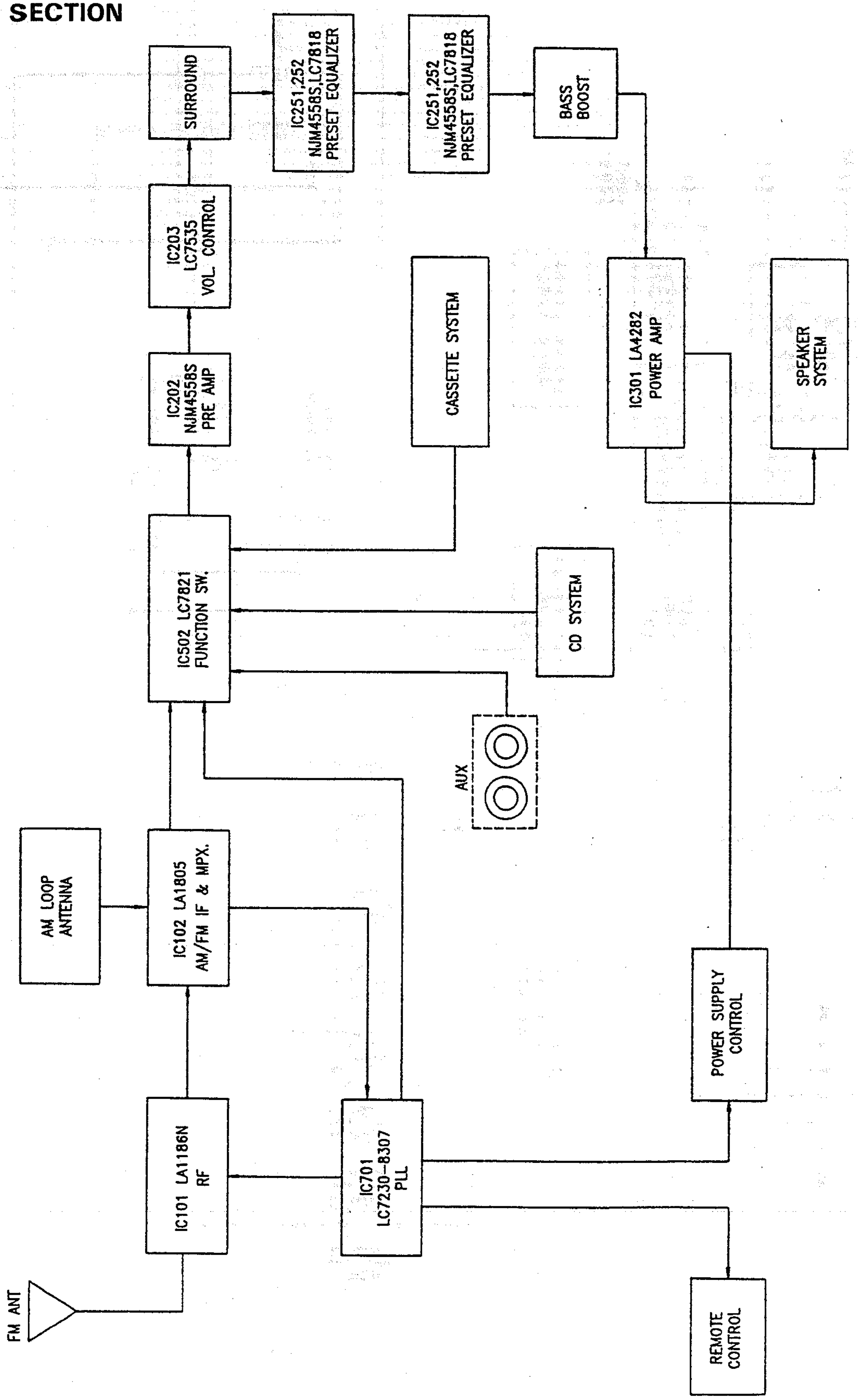

PROGRAM
EDIT
RANDOM
REPEAT 1
ALL DISC
❶
❷❸
❸❶❷
a
b
c
d
e
f
g
1
2
3
4
5
6
1
24

- Anode Connection

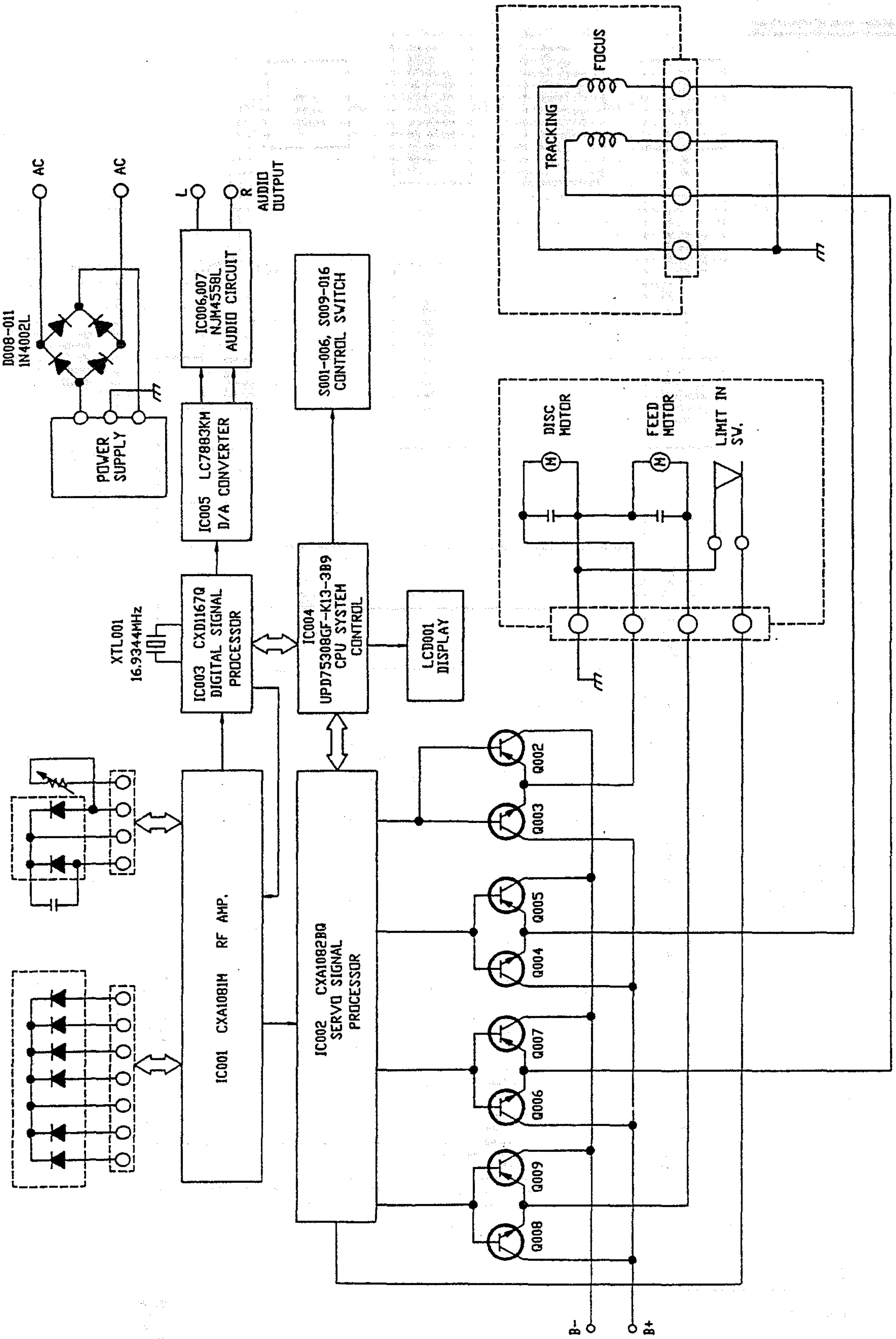
No.	1	2	3	4	5	6	7	8	9	10	11	12
COM. 1	–	–	COM. 1	③ (Lower)	① (Lower)	PLAY ▶	1e	1d	1c	2e	2d	2c
COM. 2	–	COM. 2	–	② (Center)	③ (Center)	② (Lower)	1f	1g	1b	2f	2g	2b
COM. 3	COM. 3	–	–	•	① (Upper)	PAUSE ▮▮	–	1a	PROGRAM	–	2a	—
No.	13	14	15	16	17	18	19	20	21	22	23	24
COM. 1	3e	3d	3c	4e	4d	4c	5e	5d	5c	6e	6d	6c
COM. 2	3f	3a	3b	4f	4a	4b	5f	5a	5b	5f	6a	6b
COM. 3	EDIT	3a	–	RANDOM	4a	:	REPEAT	5a	ALL	DISC	6a	1

9. BLOCK DIAGRAM

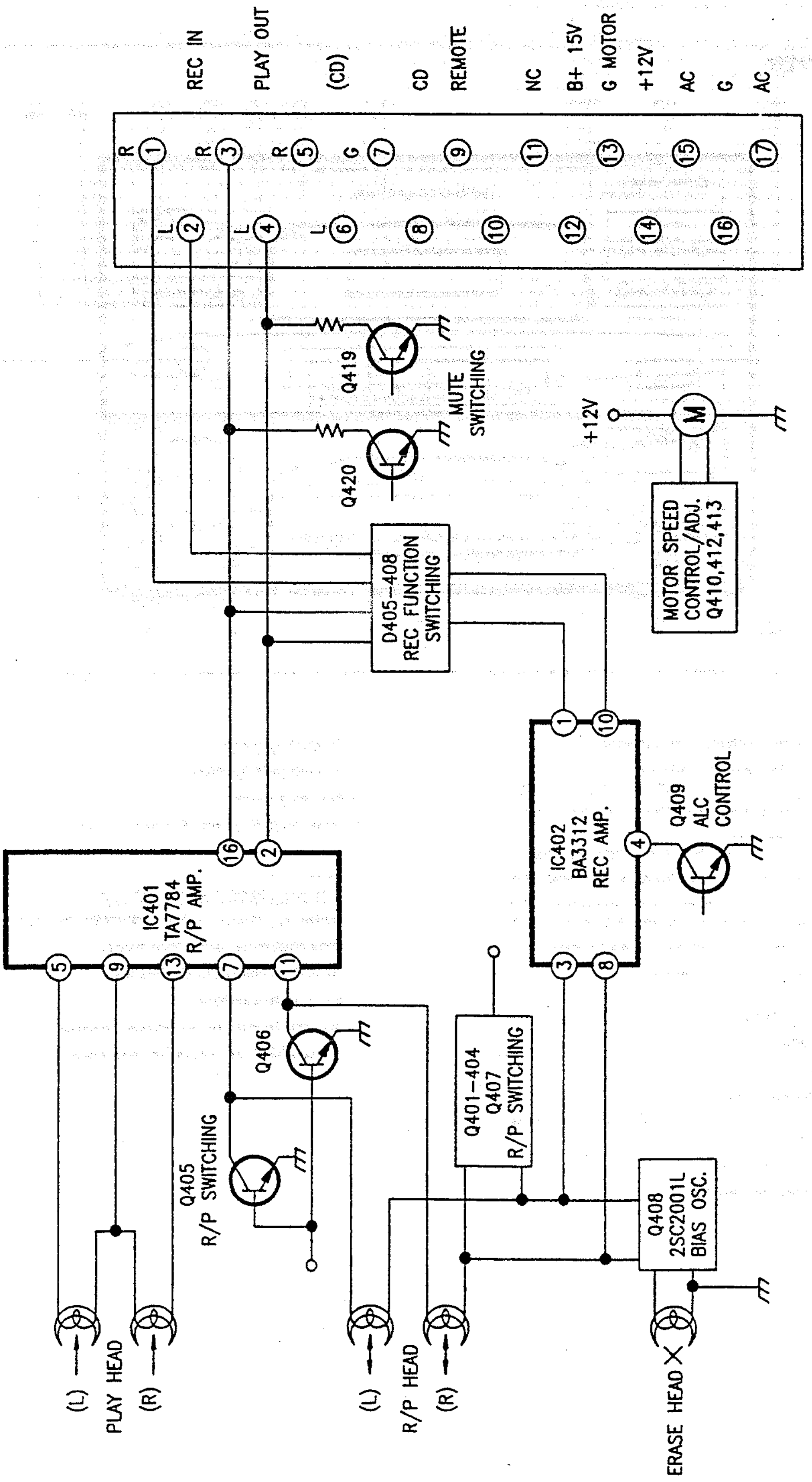
9.1 TUNER SECTION


SURROUND
IC251,252 NJM4558S,LC7818 PRESET EQUALIZER
IC251,252 NJM4558S,LC7818 PRESET EQUALIZER
BASS BOOST
IC203 LC7535 VOL. CONTROL
CASSETTE SYSTEM
IC301 LA4282 POWER AMP
SPEAKER SYSTEM
IC202 NJM4558S PRE AMP
IC502 LC7821 FUNCTION SW.
CD SYSTEM
AUX
AM LOOP ANTENNA
IC102 LA1805 AM/FM IF & MPX.
POWER SUPPLY CONTROL
IC101 LA1186N RF
IC701 LC7230-8307 PLL
FM ANT
REMOTE CONTROL

9.2 CD SECTION

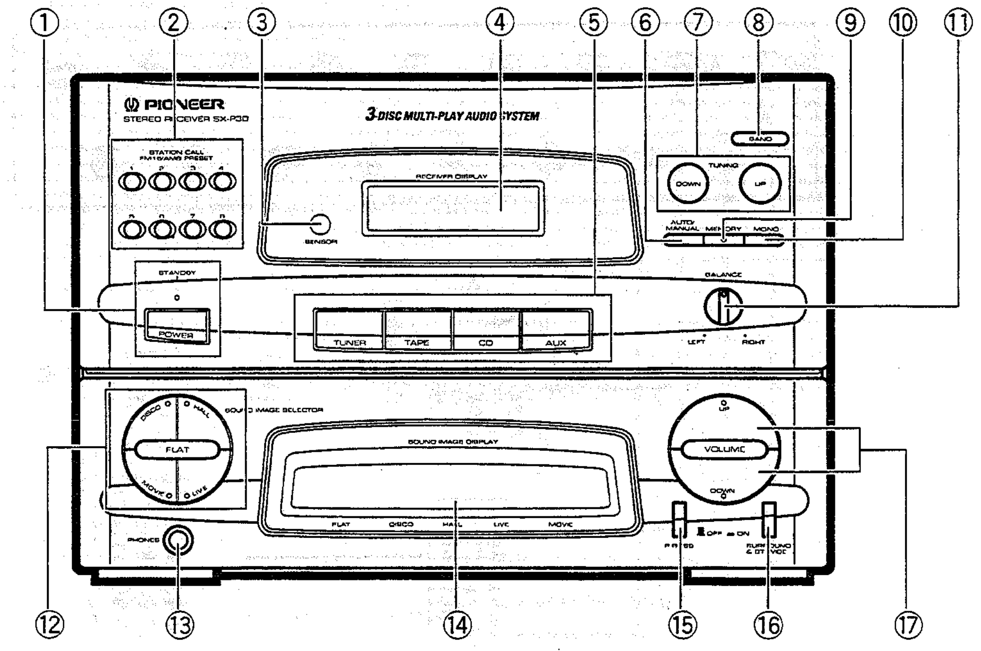

AC
AC
D008-011
1N4002L
POWER SUPPLY
L
R
AUDIO OUTPUT
IC006,007
NJM4558L
AUDIO CIRCUIT
IC005 LC7883KM
D/A CONVERTER
S001-006, S009-016
CONTROL SWITCH
XTL001
16.9344MHz
IC003 CXD1167Q
DIGITAL SIGNAL
PROCESSOR
IC004
UPD75308GF-K13-3B9
CPU SYSTEM
CONTROL
LCD001
DISPLAY
IC001 CXA1081M RF AMP.
IC002 CXA1082BQ
SERVO SIGNAL
PROCESSOR
Q002
Q003
Q005
Q004
Q007
Q006
Q009
Q008
B-
B+
FOCUS
TRACKING
DISC MOTOR
FEED MOTOR
LIMIT IN SW.
M
M

9.3 CASSETTE DECK SECTION


REC IN
PLAY OUT
(CD)
CD
REMOTE
NC
B+ 15V
G MOTOR
+12V
AC
G
AC
R ①
L ②
R ③
L ④
R ⑤
L ⑥
G ⑦
⑧
⑨
⑩
⑪
⑫
⑬
⑭
⑮
⑯
⑰
Q419
Q420
MUTE SWITCHING
+12V
M
MOTOR SPEED CONTROL/ADJ. Q410,412,413
D405–408 REC FUNCTION SWITCHING
IC402 BA3312 REC AMP.
Q409 ALC CONTROL
IC401 TA7784 R/P AMP.
Q406
Q405 R/P SWITCHING
Q401–404 Q407 R/P SWITCHING
Q408 2SC2001L BIAS OSC.
(L) PLAY HEAD (R)
(L) R/P HEAD (R)
ERASE HEAD

10. PANEL FACILITIES

RECEIVER


①
②
③
④
⑤
⑥
⑦
⑧
⑨
⑩
⑪
PIONEER
STEREO RECEIVER SX-P30
3-DISC MULTI-PLAY AUDIO SYSTEM
STATION CALL
RECEIVER DISPLAY
SENSOR
BAND
TUNING
DOWN
UP
AUTO/MANUAL
MEMORY
MONO
STANDBY
POWER
TUNER
TAPE
CD
AUX
BALANCE
LEFT
RIGHT
SOUND IMAGE SELECTOR
DISCO
HALL
FLAT
MOVIE
LIVE
SOUND IMAGE DISPLAY
VOLUME
UP
DOWN
PHONES
OFF
ON
P. BASS
SURROUND & ST WIDE
⑫
⑬
⑭
⑮
⑯
⑰

RECEIVER

① **POWER switch/STANDBY indicator**
This is the switch for electric power.

ON:	When set to the ON position, power is supplied and the unit becomes operational.
STANDBY:	When set to the STANDBY position, the main power flow is cut and the unit is no longer fully operational. A minute flow of power feeds the unit to maintain operation readiness.

② **STATION CALL FM (16)/AM (8) PRESET buttons**

③ **Remote control SENSOR**

④ **RECEIVER DISPLAY**

⑤ **Function buttons (TUNER, TAPE, CD, AUX)**
Select the desired function before performing other operations.

⑥ **AUTO/MANUAL button**

⑦ **TUNING DOWN/UP buttons**

⑧ **BAND button**

⑨ **MEMORY button**

⑩ **MONO button**

⑪ **BALANCE LEFT/RIGHT knob**
To set the stereo sound balance between the speakers.

⑫ **SOUND IMAGE SELECTOR buttons (DISCO, HALL, LIVE, MOVIE, FLAT)**

⑬ **Headphone jack (PHONES)**

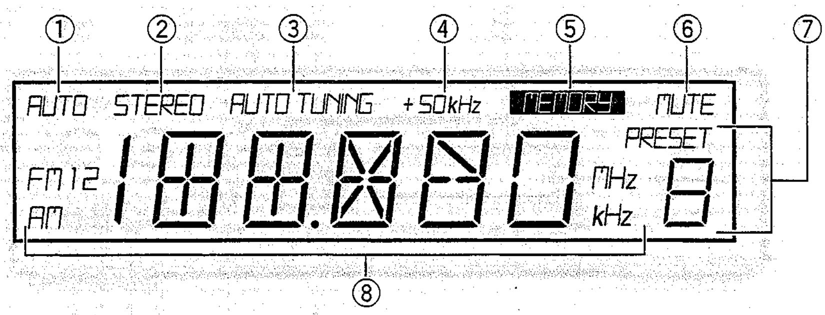
⑭ **SOUND IMAGE DISPLAY**

⑮ **P. BASS switch**

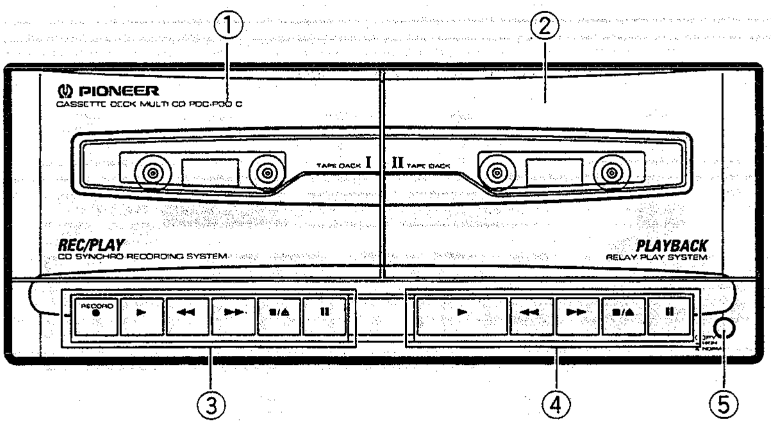
⑯ **SURROUND & ST WIDE switch**

⑰ **VOLUME UP/DOWN buttons**

RECEIVER DISPLAY


①
②
③
④
⑤
⑥
⑦
AUTO
STEREO
AUTO TUNING
+50kHz
MEMORY
MUTE
PRESET
FM 1 2
AM
MHz
kHz
⑧

TAPE DECK


①
②
PIONEER
CASSETTE DECK MULTI CD PDC-P30 C
TAPE DECK I
II TAPE DECK
REC/PLAY
CD SYNCHRO RECORDING SYSTEM
PLAYBACK
RELAY PLAY SYSTEM
RECORD
③
④
⑤

RECEIVER DISPLAY

① **AUTO indicator**
The AUTO indicator turns off in the FM MONO mode.

② **STEREO indicator**
Lights during reception of stereo broadcasts.

③ **AUTO TUNING indicator**
Lights during auto tuning.

④ **+ 50 kHz indicator (Multi-voltage models only)**
This indicator lights and goes out with each 50 kHz change in reception frequency during reception of FM broadcasts.

⑤ **MEMORY indicator**
Lights when the memory button is pressed during the manual preset operation.

⑥ **MUTE indicator**
Lights during audio muting.

⑦ **Preset number display**
When manual preset operation is used, the preset station number is displayed here.

⑧ **Frequency display**
Frequency is displayed.

TAPE DECK

① **DECK I cassette door**

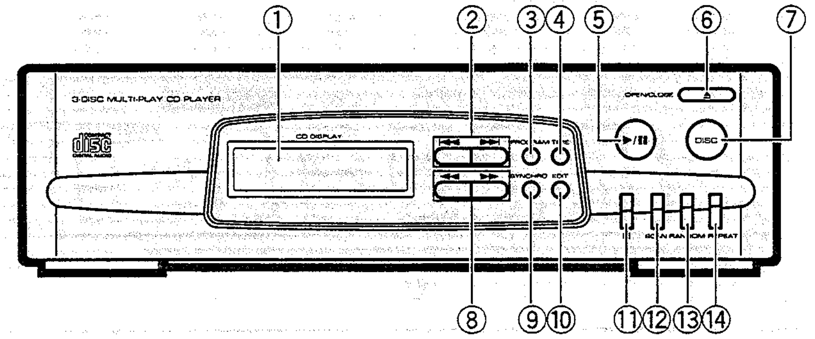
② **DECK II cassette door**

③ **DECK I operation switches (RECORD ●, Play ►, Fast ◄◄ ►►, Stop/Eject ■/▲, Pause II)**

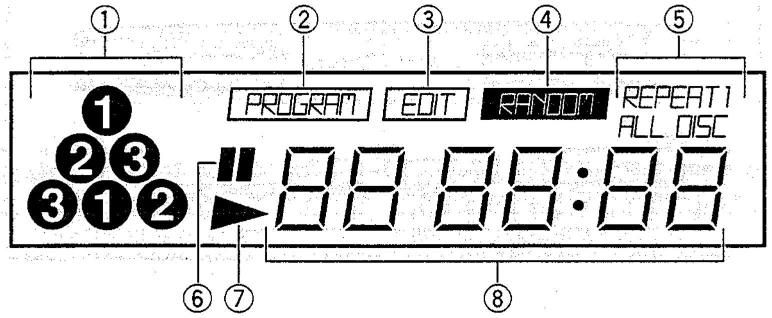
④ **DECK II operation switches (Play ►, Fast ◄◄ ►►, Stop/Eject ■/▲, Pause II)**

⑤ **COPY switch**

CD PLAYER


①
②
③
④
⑤
⑥
⑦
3-DISC MULTI-PLAY CD PLAYER
COMPACT disc DIGITAL AUDIO
CD DISPLAY
PROGRAM
TIME
SYNCHRO
EDIT
OPEN/CLOSE
▲
►/II
DISC
SCAN
RANDOM
REPEAT
⑧
⑨
⑩
⑪
⑫
⑬
⑭

CD DISPLAY


①
②
③
④
⑤
1
2 3
3 1 2
PROGRAM
EDIT
RANDOM
REPEAT 1
ALL DISC
88 88:88
⑥
⑦
⑧

CD PLAYER

① **CD DISPLAY**
② **Track search buttons (⏮ ⏭)**
③ **PROGRAM button**
④ **TIME button**
⑤ **Play/Pause button (►/II)**
⑥ **OPEN/CLOSE button (▲)**
⑦ **DISC button**
⑧ **Manual search buttons (◄◄ ►►)**
⑨ **SYNCHRO button**
⑩ **EDIT button**
⑪ **Stop button (■)**
⑫ **SCAN button**
⑬ **RANDOM button**
⑭ **REPEAT button**

CD DISPLAY

① **Disc tray number indicator**
Lights when function is set to CD. The currently playing disc number flashes.
② **PROGRAM indicator**
Lights during program mode.
③ **EDIT indicator**
Lights when EDIT recording is performed.
④ **RANDOM indicator**
Lights during random playback.
⑤ **REPEAT indicator**
Lights during repeat playback.
⑥ **Pause indicator (II)**
Lights during pause mode.
⑦ **Play indicator (►)**
Lights when playing a CD.
⑧ **Track number/time display**
Displays track number and playback time, etc.

11. SPECIFICATIONS

STEREO RECEIVER: SX-P30

Amplifier section

<U.S., Canadian and multi-voltage models> Continuous Average Power Output is 7 Watts* per channel, min., at 8 ohms from 50 Hertz to 20,000 Hertz with no more than 0.9 % total harmonic distortion.**

Continuous Power Output (DIN)	9.5 W + 9.5 W (1 kHz, T.H.D. 1%, 8Ω)
Continuous Power Output (RMS)	12.5 W + 12.5 W (1 kHz, T.H.D. 10%, 8 Ω)
Peak Music Power (Multi-voltage model only)	150 W

FM/AM tuner section

FM Tuner Section

Frequency Range	
U.S., Canadian and Australian models	87.9–107.9 MHz
U.K. model	87.5–108.0 MHz
Multi-voltage model	
With 100 kHz step	87.9–107.9 MHz
With 50 kHz step	87.5–108.0 MHz
Antenna Input	300 ohms balanced 75 ohms unbalanced

AM Tuner Section

Frequency Range	
With 10 kHz step	530 kHz to 1,730 kHz
With 9 kHz step	531 kHz to 1,602 kHz
Antenna	Loop Antenna

Miscellaneous

Power Requirements	
U.K. and Australian models	AC 240V, 50/60 Hz
European model	AC 220–230V, 50/60 Hz
U.S. and Canadian model	AC 120 V, 60 Hz
Multi-voltage model	110/120–127/ 220-230/240 V AC (switchable), 50/60 Hz
Power Consumption	
U.K., Australian and Multi-voltage models	94 W
U.S. and Canadian model	84 W
Dimensions	280 (W) × 190 (H) × 316 (D) mm 11 (W) × 7-1/4 (H) × 12-1/4 (D) in
Weight (without package)	
Multi-voltage model	6.1 kg
Other models	5.8 kg (12 lb 13 oz)

CASSETTE DECK MULTI CD: PDC-P30C

CD Section

Type	Compact disc digital audio system
Wow and Flutter	Limit of measurement (±0.001% W.PEAK) or less (EIAJ)

Cassette deck section

Systems	4 track, 2-channel stereo
Heads	Recording/playback head × 1 Playback head × 1 Erasing head × 1
Motor	DC servo motor × 1
Tape type	TYPE I (Normal) tape
Dimensions	280 (W) × 190 (H) × 311 (D) mm 11 (W) × 7-1/4 (H) × 12-1/8 (D) in.
Weight	4.7 kg (10 lb 6 oz)

SPEAKER SYSTEM: S-P30

Enclosure	Bass reflex type
System	2-way 2-speaker system
Loudspeakers:	
Woofer	12 cm (5 in.) cone type
Tweeter	5 cm (2 in.) once type
Nominal Impedance	8 Ω
Dimensions	190 (W) × 380 (H) × 162 (D) mm 7-1/4 (W) × 14-9/16 (H) × 6-3/16 (D) in.
Weight	2.6 kg (5 lb 12 oz)

Accessories

Operating Instructions	1
Remote Control Unit	1
Dry Cell Batteries (R6P/AA)	2
FM Antenna	1
AM Loop Antenna	1

* Measured pursuant to the Federal Trade Commissions's. Trade Regulation rule on Power Output Claims for Amplifier.

** Measured by audio spectrum analyzer.